Officer in Charge Marine Inspections
US Coast Guard Sector San Francisco
Coast Guard Island, Bldg 14
Alameda, CA 94501

November 23, 2011

Attn: Domestic Vessel Inspections

Dear OCMI;

My vessel, SPIRIT OF SACRAMENTO, Official Number 510560, presently has a stability letter authorizing the carriage of 344 passengers and 13 crew members on a partially protected route. The assumed average weight per person (AAWPP) at the time approved stability information was issued was 140 lbs for passengers and 160lbs for crew. The total weight for passengers and crew for my vessel is determined to be 50,240 lbs.

Beginning December 1, 2011 to comply with the updated stability regulations, I will restrict the total number of passengers and crew aboard the SPIRIT OF SACRAMENTO to a maximum of 271 total persons (260 passengers and 11 crew members) based upon the AAWPP of 185 lbs. Further, as the original test accounted for passengers allowed per deck, I will reduce the 02 deck allowance from 100 to 75, and the combination of the 01+02 decks from 204 to 154 passengers.

I have enclosed a copy of my vessel's current stability letter for review.

Sincerely,

Mr. John Stahl
Branson Bay, LLC
SPIRIT OF SACRAMENTO

U.S. Department of Transportation
United States Coast Guard

Commanding Officer
United States Coast Guard
Marine Safety Center

400 7TH Street S.W.
Washington, DC 20590-0001
Staff Symbol: MSC-1
Phone: (202)366-6481
Fax: (202)366-3877

STABILITY LETTER

16710/P003804
Ser H1-9703912
December 4, 1997

Master, SPIRIT OF SACRAMENTO, O.N. 510560
84.2' x 27.2' x 5.2' Small Passenger Vessel (K)

You are responsible for maintaining this vessel in a satisfactory stability condition at all times and for following the instructions and precautions listed below.

An inclining experiment, witnessed by the U. S. Coast Guard, was conducted on the subject vessel, at Sacramento, California, on November 12, 1997. On the basis of that test, stability calculations have been performed. Results indicate that the stability of the SPIRIT OF SACRAMENTO, as presently outfitted and equipped, is satisfactory for operation on Partially Protected Waters, provided that the following restrictions are observed.

SUBDIVISION

When operated as indicated below, calculations indicate this vessel will remain afloat with any one major compartment flooded (one-compartment subdivision). A major compartment is the total space between any two adjacent Main Transverse Watertight Bulkheads (MTWB's). For this vessel, these MTWB's are located at frames 4, 18, 31, 46, 62, and 75.

DAMAGE SURVIVAL

Calculations indicate this vessel will stay upright (no more than 7 degrees of list under ideal conditions) after side damage when the side damage is limited to any one major compartment and not more than 5 feet 5-1/4 inches inboard from the side of the hull. To maintain the vessel upright after flooding (damage), the heeling forces imposed by wind, wave and passenger movements must be minimized.

OPERATING RESTRICTIONS

1. ROUTE: Operation on Partially Protected waters may be permitted. Since the vessel's route is based upon other considerations in addition to stability, you are cautioned that the route may be further limited to that specified on the Certificate of Inspection.

2. PERSONNEL: A maximum of 357 persons may be carried on this three deck vessel of which 344 may be passengers. A maximum of 100 persons may be carried on the 02 deck. A maximum of 204 persons may be carried on the 01 deck and above. Since the personnel capacity is based upon other considerations in addition to stability, you are cautioned that the number of persons carried may be further limited to that specified on the Certificate of Inspection.

16710/P003804
Ser H1-9703912
December 4, 1997

Subj: SPIRIT OF SACRAMENTO, O.N. 510560; Stability Letter

3. DRAFT AND TRIM: A freeboard of at least 1 feet 10-1/4 inches from the main deck amidships must be maintained. This corresponds to a baseline draft of 3 feet 7-3/4 inches. Trim should be minimized.

4. WATERTIGHT BULKHEADS: No watertight bulkheads shall be removed or altered without the authorization and supervision of the cognizant Officer in Charge, Marine Inspection (OCMI).

5. HULL OPENINGS: Any openings that could allow water to enter into the hull should be kept closed when rough weather or sea conditions exist or are anticipated.

6. TANKS: Any cross-connections between port and starboard tank pairs shall be kept closed at all times when underway.

7. DECK CARGO: No deck cargo may be carried.

8. WEIGHT CHANGES: This stability letter has been issued based upon the following light ship parameters:

Displacement	150.98 Long Tons
VCG	8.14 Feet Above the Baseline
LCG	7.83 Feet Aft of Amidships

Amidships is located 42 feet 6 inches forward of the stern. Any alteration resulting in a change in these parameters will invalidate this stability letter. No fixed ballast or other such weights shall be added, removed, altered and/or relocated without the authorization and supervision of the cognizant OCMI. The vessel is not fitted with permanent ballast.

9. BILGES: The vessel's bilges and voids shall be kept pumped to minimum content at all times consistent with pollution prevention requirements.

10. FREEING PORTS: Deck freeing ports shall be maintained operable and completely unobstructed at all times.

11. LIST: You should make every effort to determine the cause of any list of the vessel before taking corrective action.

This stability letter shall be posted under glass or other suitable transparent material in a suitable location on board the vessel so that all pages are visible.

D. C. Aurand

D. C. AURAND
Commander, U. S. Coast Guard
By direction of the Commanding Officer

PERMANENT FILE

U.S. Department of Transportation
United States Coast Guard

Commanding Officer
United States Coast Guard
Marine Safety Center

400 7TH Street S.W.
Washington, DC 20590-0001
Staff Symbol: MSC-1
Phone: (202)366-6481
Fax: (202)366-3877

16710/P003804
Ser H1-9703911
December 4, 1997

Mr. John R. Bond
John R. Bond & Associates
P. O. Box 18454
Panama City Beach, FL 32417

Subj: SPIRIT OF SACRAMENTO, O.N. 510560
84.2' x 27.2' x 5.2' Small Passenger Vessel (K)
Stability

Ref: (a) Your letter dated November 18, 1997
(b) Navigation and Vessel Inspection Circular No. 10-92, Change 1: "Coast Guard Recognition of Registered Professional Engineer Certification of Compliance with Coast Guard Requirements"

Dear Mr. Bond:

Enclosure (1), received with reference (a), has been accepted in accordance with reference (b) and is marked "Examined." Calculations such as these are not normally approved; however, the information provided is used to evaluate the stability of the subject vessel. The following are the approved light ship values:

Displacement	150.98 Long Tons
VCG	8.14 Feet Above the Baseline
LCG	7.83 Feet Aft of Amidships

Enclosure (2) is the stability letter for the subject vessel. The owner is responsible for ensuring that the stability letter is posted under glass or other suitable material in the pilothouse of the vessel so that all pages are visible.

Should there be any questions please feel free to contact the project officer, Lieutenant DeWane Ray, at either of the above numbers.

Sincerely,

P. J. ZOHORSKY
Lieutenant Commander, U. S. Coast Guard
Chief, MODU Branch
By direction of the Commanding Officer

Encl: (1) Stability Test Report Dated November 12, 1997
(2) Stability Letter for SPIRIT OF SACRAMENTO, dated December 4, 1997

Copy: MSO San Fransisco w/encls (1
MSD Concord

OPTIONAL FORM 99 (7-90)
FAX TRANSMITTAL # of pages ▸ 3

To LCDR SLAIN	From LT RAY G-MSC
Dept./Agency MSO CONCORD	Phone # 202 366-6497
Fax # 510 246-2438	Fax # " " 3877

NSN 7540-01-317-7388 5099-101 GENERAL SERVICES ADMINISTRATION

VSL PERMANENT FILE

U.S. Department of Transportation
United States Coast Guard

Commanding Officer
United States Coast Guard
Marine Safety Center

400 7TH Street S.W.
Washington, DC 20590-0001
Staff Symbol: MSC-1
Phone: (202)366-6481
Fax: (202)366-3877

STABILITY LETTER

16710/P003804
Ser H1-9703912
December 4, 1997

Master, SPIRIT OF SACRAMENTO, O.N. 510560
84.2' x 27.2' x 5.2' Small Passenger Vessel (K)

You are responsible for maintaining this vessel in a satisfactory stability condition at all times and for following the instructions and precautions listed below.

An inclining experiment, witnessed by the U. S. Coast Guard, was conducted on the subject vessel, at Sacramento, California, on November 12, 1997. On the basis of that test, stability calculations have been performed. Results indicate that the stability of the SPIRIT OF SACRAMENTO, as presently outfitted and equipped, is satisfactory for operation on Partially Protected Waters, provided that the following restrictions are observed.

SUBDIVISION

When operated as indicated below, calculations indicate this vessel will remain afloat with any one major compartment flooded (one-compartment subdivision). A major compartment is the total space between any two adjacent Main Transverse Watertight Bulkheads (MTWB's). For this vessel, these MTWB's are located at frames 4, 18, 31, 46, 62, and 75.

DAMAGE SURVIVAL

Calculations indicate this vessel will stay upright (no more than 7 degrees of list under ideal conditions) after side damage when the side damage is limited to any one major compartment and not more than 5 feet 5-1/4 inches inboard from the side of the hull. To maintain the vessel upright after flooding (damage), the heeling forces imposed by wind, wave and passenger movements must be minimized.

OPERATING RESTRICTIONS

1. ROUTE: Operation on Partially Protected waters may be permitted. Since the vessel's route is based upon other considerations in addition to stability, you are cautioned that the route may be further limited to that specified on the Certificate of Inspection.

2. PERSONNEL: A maximum of 357 persons may be carried on this three deck vessel of which 344 may be passengers. A maximum of 100 persons may be carried on the 02 deck. A maximum of 204 persons may be carried on the 01 deck and above. Since the personnel capacity is based upon other considerations in addition to stability, you are cautioned that the number of persons carried may be further limited to that specified on the Certificate of Inspection.

16710/P003804
Ser H1-9703912
December 4, 1997

Subj: SPIRIT OF SACRAMENTO, O.N. 510560; Stability Letter

3. DRAFT AND TRIM: A freeboard of at least 1 feet 10-1/4 inches from the main deck amidships must be maintained. This corresponds to a baseline draft of 3 feet 7-3/4 inches. Trim should be minimized.

4. WATERTIGHT BULKHEADS: No watertight bulkheads shall be removed or altered without the authorization and supervision of the cognizant Officer in Charge, Marine Inspection (OCMI).

5. HULL OPENINGS: Any openings that could allow water to enter into the hull should be kept closed when rough weather or sea conditions exist or are anticipated.

6. TANKS: Any cross-connections between port and starboard tank pairs shall be kept closed at all times when underway.

7. DECK CARGO: No deck cargo may be carried.

8. WEIGHT CHANGES: This stability letter has been issued based upon the following light ship parameters:

Displacement	150.98 Long Tons
VCG	8.14 Feet Above the Baseline
LCG	7.83 Feet Aft of Amidships

Amidships is located 42 feet 6 inches forward of the stern. Any alteration resulting in a change in these parameters will invalidate this stability letter. No fixed ballast or other such weights shall be added, removed, altered and/or relocated without the authorization and supervision of the cognizant OCMI. The vessel is not fitted with permanent ballast.

9. BILGES: The vessel's bilges and voids shall be kept pumped to minimum content at all times consistent with pollution prevention requirements.

10. FREEING PORTS: Deck freeing ports shall be maintained operable and completely unobstructed at all times.

11. LIST: You should make every effort to determine the cause of any list of the vessel before taking corrective action.

This stability letter shall be posted under glass or other suitable transparent material in a suitable location on board the vessel so that all pages are visible.

D. C. Aurand

D. C. AURAND
Commander, U. S. Coast Guard
By direction of the Commanding Officer

INWSH11.XLS

Rough Data 11/12/97

SPIRIT OF SACRAMENTO STABILITY TEST
DATA SHEETS

VESSEL NAME:	SPIRIT OF SACRAMENTO											
TYPE:	PADDLE WHEEL QUEEN											
BUILDER:	DUBUQUE BOAT AND BOILER CO., DUBUQUE, IOWA											
CLASS												
VESSEL INCLINED AT:		L STREET LANDING, OLD SACRAMENTO, CA.										
DATE:	11/12/97	TIME:	10:30 - 12:30 EDT									
TEST CONDUCTED BY:		JOHN R. BOND										
TEST WITNESSED BY:												
DESCRIPTION OF WEATHER:	Calm - 60°F											
WEIGHTS CERTIFIED BY:												
CERTIFICATE DATED:												
WATER DENSITY:	1.00	WATER TEMP (DEG F)		60°F								

LIGHT BOAT CONDITION PRIOR TO INCLINE TEST

FT FROM TRANSOME	HULL DEPTH (IN)	DECK THICKNESS (IN)	TOTAL DEPTH (IN)	PORT TAPE READING (IN)	STBD TAPE READING (IN)	PORT FREE-BOARD (IN)	STBD FREE-BOARD (IN)	DISTANCE FROM FP (FT)	PORT DRAFT (IN)	STBD DRAFT (IN)	AVERAGE DRAFT (IN)
0			54	23 3/4	54 1/4						54
1				43 3/4							43 3/4
				33 1/2							33 1/2
				24 1/4	44 1/2						24 1/4
			25	24 3/4	33 3/4						25
			25 1/4		30						25 1/4
					26 3/4						
					27 1/8						

INITIAL FREEBOARD READINGS, INCLINE TEST CONDITION

FT FROM TRANSOME	HULL DEPTH (IN)	DECK THICKNESS (IN)	TOTAL DEPTH (IN)	PORT TAPE READING (IN)	STBD TAPE READING (IN)	PORT FREE-BOARD (IN)	STBD FREE-BOARD (IN)	DISTANCE FROM FP (FT)	PORT DRAFT (IN)	STBD DRAFT (IN)	AVERAGE DRAFT (IN)
0				25 1/4	27						
13' 1"				25	26 3/4						
34' 1 7/8				24 1/4	30						
48' 10 1/2				33 1/2	33 3/4						
66' 3 3/4				43 3/4	44 1/2						
85' 6"				54 3/4	54 1/4						
				PORT MOVES							

11/12/97

11/12/97 USCG

INWSH11.XLS

SPIRIT OF SACRAMENTO STABILITY TEST
DATA SHEETS

Starboard ~~Port~~ Moves

WEIGHTS (GROUPS OF ~~8~~ 3 BARRELS)	CERTIFIED WEIGHT 560#/e	INITIAL LOCATION (+ STBD) (IN)	MOMENT MOVE 0 (FT. LB) (+STBD)	MOVE 1 (INCH) (+STBD)	MOMENT MOVE 1 (FT. LB) (+STBD)	MOVE 2 (INCH) (+STBD)	MOMENT MOVE 2 (FT. LB) (+STBD)	MOVE 3 (INCH) (+STBD)	MOMENT MOVE 3 (FT. LB) (+STBD)	MOVE 4 (INCH) (+STBD)	MOMENT MOVE 4 (FT. LB) (+STBD)
1,2,3	1680#										
#1 () (_ AFT FP)	.75	157									
#2 () (_ AFT FP) 4,5,6	.75	157									
#3 () (_ AFT FP) 7,8,9	.75	157									
#4 () (_ AFT FP) 10,11,12	.75	157									
TOTAL	.75	157									

~~STARBOARD MOVES~~

	WEIGHTS	CERTIFIED WEIGHT	INITIAL LOCATION (+ STBD) (IN)	MOMENT MOVE 0 (FT. LB) (+STBD)	MOVE 1 (INCH) (+STBD)	MOMENT MOVE 1 (FT. LB) (+STBD)	MOVE 2 (INCH) (+STBD)	MOMENT MOVE 2 (FT. LB) (+STBD)	MOVE 3 (INCH) (+STBD)	MOMENT MOVE 3 (FT. LB) (+STBD)	MOVE 4 (INCH) (+STBD)	MOMENT MOVE 4 (FT. LB) (+STBD)
	#5 () (_ AFT FP)	.75	-157	~~[illegible]~~	26'9"							
6	~~#2~~ () (_ AFT FP)	.75	-157	~~[illegible]~~			26'10"	0.00				
7	~~#3~~ () (_ AFT FP)	.75	-157			0.00	0.00	0.00	23'8"			
5	#4 () (_ AFT FP)	.75	-157					0.00		0.00	23'8"	0.00
	TOTAL											0.00

Port Moves

#1 - 1,2,3	.75	+157 ~~-157~~								
#2 4,5,6	.75	+157								
#3 7,8,9	.75	+157								
#4 10,11,12	.75	+157								
#5 13,14,15	.75	-	26'7"							
#6 16,17,18	.75				26'5"					
#7 19,20,21	.75									
#8 22,23,24	.75								23'7"	

1 - 26'5"
2 - 23'5"

M = 11.7
+6.625
18.333

JB [signature] 11/12/97 USCG

EPA-R9-2017-000269_0000415

INWSH11.XLS

SPIRIT OF SACRAMENTO STABILITY TEST DATA SHEETS

WT Reader

PENDULUM DISPLACEMENTS, (IN) PORT MOVES

PENDULUMS	LOCATION	LENGTH TO BATTEN (IN)	ZERO READING	MOVE 1 READING	MOVE 1 DISPLACEMENT	MOVE 2 READING	MOVE 2 DISPLACEMENT	MOVE 3 READING	MOVE 3 DISPLACEMENT	MOVE 4 READING	MOVE 4 DISPLACEMENT
#1 Fwd - DIT	FWD, FR.	10' 5"	101 3/4	103 1/8	1-3/8	104 5/8	2 7/8 2 3/4	105 1/2	3 3/4	106 5/8	4 7/8
#2 ST-02-03 Lad	MIDSHIP, FR.	9' 8"	14 1/2	15 3/4	1 1/4	17/17	2 1/2	18 1/4	3 3/4	19 1/2	5
#3 PT 02-03L	AFT. FR	9' 7 1/2	~~14 5/8~~ 14 3/8	47 1/2	1 1/4	48 3/4	2 1/4	50	3 3/4	51 3/8	5 1/8

PENDULUM DISPLACEMENTS, (IN) Port STARBOARD MOVES

PENDULUMS	LOCATION	LENGTH TO BATTEN (IN)	ZERO READING	MOVE 1 READING	MOVE 1 DISPLACEMENT	MOVE 2 READING	MOVE 2 DISPLACEMENT	MOVE 3 READING	MOVE 3 DISPLACEMENT	MOVE 4 READING	MOVE 4 DISPLACEMENT
#1	FWD, FR.	125	101 5/8	100 1/2	1 1/8	99 3/8	2 1/4	98 1/4	3 3/8	96 7/8	4 3/4
#2	ST MIDSHIP, FR.	~~116.5~~	14 1/2	13 3/8	1 1/8	12 1/8	2 3/8	10 7/8	3 5/8	9 5/8 3/4	4 7/8
#3	Port AFT. FR	115.5	46 1/4	45 1/8	1 1/8	44	2 1/4	42 3/4	3 1/2	41 1/2	4 3/4

PLOT TANGENTS	MOMENTS (FT. LB.)	PEND #1	PEND #2	PEND #3	#1	#2	#3	#1	#2	#3	
P MOVE 4	75,77 0.00	#DIV/0!	#DIV/0!	#DIV/0!	.011			.038	.042	.0411	
P MOVE 3	58,08 0.00	#DIV/0!	#DIV/0!	#DIV/0!	.022			.027	.0312	.0303	
P MOVE 2 3975	~~35,27~~ 0.00	#DIV/0!	#DIV/0!	#DIV/0!				.018	.0204	.0194	
P MOVE 1	19,93 0.00	#DIV/0!	#DIV/0!	#DIV/0!				.009	.0099	.00984	
MOVE 0	0.00	0.0000	0.0000	0.0000							
S MOVE 1	20,06 0.00	#DIV/0!	#DIV/0!	#DIV/0!				.011	.0108	.0101	
S MOVE 2	40,1875 0.00	#DIV/0!	#DIV/0!	#DIV/0!				.022	.02155	.0195	
S MOVE 3	57,937 0.00	#DIV/0!	#DIV/0!	#DIV/0!				.03	.0323	.0325	
S MOVE 4	75,686 0.00	#DIV/0!	#DIV/0!	#DIV/0!				.039	.041	.0437	

11/12/97

SOLD BY Morgan DATE 11-11 19 97

NAME USCG

ADDRESS

REGISTER NUMBER	AMOUNT RECEIVED	ACCT. RCVD.
1		
2	600	
3		
4		
5	CASH	
6		
7		
8	WT	
9		
10	Morgan Emultech	
11	3785 Channel Drive	
12	West Sacramento, CA 95691	
13	20	
14		

RECIFORM® 5A200

GAN EMULTECH

Oiling and Bulk Transport

LISTS IN QUALITY MATERIALS AND SERVICE"

3785 CHANNEL DRIVE
N. SACRAMENTO, CA 95691
(916) 371-8480

7701 11th STREET
WHITE CITY, OR 97503
(503) 826-3373

IS NOT A STATE CERTIFIED WEIGHT

ORGAN EMULTECH

CHARGE:_____ FEE $6.00

3180 LB

2620 LB - TARE

GROSS: 3180

TARE: 2620

NET: 560

TONS:_____

Y. Klein
USCG 11/12/97

ANNEXES

(Mandatory Information)

A1. TO RECEIVE UNITED STATES COAST GUARD APPROVAL OF THE STABILITY TEST ON COMMERCIAL VESSELS THE FOLLOWING ADDITIONAL REQUIREMENTS SHOULD BE FOLLOWED

(In Amplification of the Regulations)

A1.1 *Prior Notification To The Coast Guard Marine Safety Center*—Written notification of the test must be sent to the Coast Guard Marine Safety Center (MSC) at least two weeks prior to the test. The MSC will make arrangements for an acceptable representative to witness the test.

A1.1.1 *Details of Notification*—Witten notification should provide the following information:

A1.1.1.1 Identification of the vessel by name and shipyard hull number, if applicable.

A1.1.1.2 Date, time, and location of the test.

A1.1.1.3 Inclining weight data.

(*a*) Type,

(*b*) Amount (number of units and weight of each),

(*c*) Certification,

(*d*) Method of handling (that is, sliding rail or crane), and

(*e*) Anticipated maximum angle of heel to each side.

A1.1.1.4 *Pendulums*—Approximate location and length. (If a shipyard/naval architect desires to substitute inclinometers or other measuring devices for one or two of the three required pendulums, prior approval must be obtained from the MSC. The MSC might require that the devices be used in addition to the pendulums on one or more inclinings to verify their accuracy before allowing actual substitution for a pendulum.)

A1.1.1.5 Approximate trim.

A1.1.1.6 Condition of tanks.

A1.1.1.7 Estimated weights to deduct, to complete, and to relocate in order to place the vessel in its true light ship condition.

A1.1.1.8 Detailed description of any computer software to be used to aid in calculations during the inclining.

A1.1.1.9 Name and phone number of the person responsible for conducting the test.

A1.2 Alternate mooring arrangements will be considered if submitted for review prior to the test. Such arrangements should ensure that the vessel will be free to list without restraint for a sufficient period of time to allow the pendulums to damp out motion so that the readings can be recorded.

A1.3 Each of the test weights must be certified by a weigh-master's document and a copy provided to the Coast Guard representative. For small vessels, capped drums, completely filled with water may be used. In such cases, the weight should be verified in the presence of the Coast Guard representative using a recently calibrated scale.

A1.4 If bad weather conditions are detected early enough and the weather forecast does not call for improving conditions, the Coast Guard representative should be advised prior to departure from the office and an alternate date scheduled.

A1.5 An estimate of work items which will be outstanding at the time of the stability test should be included as part of any test procedure submitted to the MSC. This is required so that the Coast Guard representative can advise the shipyard/naval architect if in their opinion the vessel will not be sufficiently complete to conduct the stability test and that it should be rescheduled. If the condition of the vessel is not accurately depicted in the test procedure and at the time of the stability test the Coast Guard witness considers that the vessel is in such condition that an accurate stability test cannot be conducted, the witness may refuse to accept the test and require that a test be conducted at a later date.

A1.6 A certified marine chemist's certificate certifying that all fuel oil and chemical tanks are safe for human entry should be available, if necessary.

A1.7 If a computer program is used to perform calculations during the inclining, Coast Guard approval to use the program must be obtained prior to the test.

A1.8 Prior to departing the vessel, the person conducting the test and the Coast Guard representative should initial each sheet as an indication of their concurrence with the recorded data.

A1.9 A copy of the data should be forwarded to the MSC along with the stability test report.

A1.10 When completed, three copies of the stability test report should be submitted to the MSC for approval.

A1.11 The Coast Guard may alter or limit acceptance of any provision in this guide.

A1.12 When the American Bureau of Shipping is representing the Coast Guard during a stability test, the words, American Bureau of Shipping, should be substituted for the words, Coast Guard, and for the words, Marine Safety Center, in this annex.

A2. FOR STABILITY TESTS ON UNITED STATES NAVY (USN) VESSELS THE FOLLOWING ADDITIONAL REQUIREMENTS APPLY

A2.1 The inclining experiment shall be performed in accordance with the requirements set forth in Naval Ship's Technical Manual,[2] and as modified below. The stability test report shall be prepared on the forms described in the above technical manual.

A2.2 Photographs of topside arrangements including weather decks is required to document topside installations. Photographs of each draft mark reading are also required.

A2.3 A comprehensive survey of all compartments, tanks, and voids is required to determine the weight and center of

[2] *NAVSEA 59086-C6-STM-000*, Chapter 096, "Weights and Stability," available from Commanding Officer, Naval Ships Weapon System Engineering Station, Code 5700, Port Hueneme, CA 93043.

APPENDIXES

(Nonmandatory Information)

X1. STABILITY TEST CHECK LIST

X1.1 *Pre-Inclining:*

1. _____ Vessel is complete or nearly so.
   (*a*) No major structural sections or major items of equipment to be added or removed.
   (*b*) No tanks with liquids not shown in the inclining procedure.
   (*c*) No extraneous gear and personnel on board the vessel.
2. _____ Weather conditions are satisfactory.
   (*a*) No gusting winds. Steady light wind not causing motions is acceptable. Beam winds to be avoided. Wind speed normally acceptable if draft marks can be read.
   (*b*) No strong currents.
   (*c*) Not raining.
   (*d*) No waves. Ripples acceptable if can read freeboards to 1/8 in.
3. _____ Depth of water is greater than draft of vessel.
4. _____ All empty tanks should be opened and checked for liquids. All tanks containing liquids should be sounded for liquid levels. All tank levels should be recorded.
5. _____ Weight certificates obtained or the weights used for the inclining actually weighed using certified scales.
6. _____ Initial angle of heel is less than 0.5° and the trim difference from design is less than 1 % of the *LBP*. If more trim is allowed, as-trimmed hydrostatics must be used in calculations.

NOTE X1.1—In some cases, if trim is different from design, as-trimmed hydrostatics must always be used (that is, Navy inclines).

X1.2 *Freeboard/Draft Readings:*

1. _____ At least five (5) freeboard readings on each side at approximately the same intervals along the length at readily identifiable locations (for example, ends of deck houses). A verified draft mark reading may be substituted for a freeboard reading.
   (*a*) Each data point is to consist of:
      1. Freeboard reading (*f*) taken from the top of the bulwark to the point where the plumb bob touches the water.
      2. Bulwark height (*b*) reading at each location.
      3. Deck plating thickness (*t*) from the structural plan.
      4. Molded depth (*D*) at each location from the lines plan.
   (*b*) Molded Draft = molded depth plus bulwark height plus deck plating thickness minus freeboard reading ($d = D + b + t - f$).
2. _____ Draft mark readings:
   (*a*) Taken from a small boat.
   (*b*) Port and starboard; forward, midship, and aft.
   (*c*) Longitudinal locations from a known reference point.
3. _____ Plot of waterline (draft versus distance from forward perpendicular).
   (*a*) Note that draft readings are extreme (bottom of keel) while drafts from freeboard readings are molded (top of keel).
4. _____ Specific gravity of water (hydrometer reading) and water temperature readings.

X1.3 *Weight Movements:*

1. _____ Pendulums:
   (*a*) At least three (3); can be located on different decks and do not have to be on centerline.
   (*b*) Length of pendulums is measured from the pivot point to the top of the batten.
   (*c*) Pendulums should be of different lengths; to get required angle of deflection, pendulums need to be at least 10 ft long. The longer the better if sheltered from the wind. Pendulum unrestricted through maximum angle expected.
   (*d*) Thick oil in bucket to dampen movement of pendulums. Pendulums with dampers are recommended.
   (*e*) Pendulum support is fixed so it cannot be accidentally moved during the inclining.
2. _____ Battens:
   (*a*) Pencil marks placed on battens to record the position of the pendulum wires.
   (*b*) Batten is fixed so it can not be accidentally moved during the inclining.
   (*c*) Battens should never be reset once inclining begins and movements are being recorded.
3. _____ Weights:
   (*a*) Record initial position (vertical, transverse, longitudinal distances from known reference points such as distance above the deck, distance from the end of a deckhouse and distance from the centerline).
4. _____ Weight Movements:
   (*a*) At least three (3) to each side of the reference position.
   (*b*) Deflection of the pendulums at maximum moment should be at least six (6) inches to each side of the initial position.
   (*c*) Maximum angle of heel should not be greater than four (4) degrees; value of tangent must be less than 0.06993. Typical angle of heel should be between two (2) and three (3) degrees.
   (*d*) Moment equals weight times distance moved; calculated and summed for all weights moved for each movement.
   (*e*) Tangent equals pendulum deflection divided by pendulum length. When calculating the tangent, the deflection and the length must be in the same units (that is, inches or feet).
   (*f*) During each movement, ensure that:
      1. There are no taut mooring lines other than those attached to temporary pads on centerline;
      2. Pendulum weight is not touching side of bucket; and

WASTE TANK 160 GAL EMPTY
2 FW TANKS - -

3. Pendulum is not touching batten.

(*g*) Plot of moment-tangent curve:

1. Plot each tangent value calculated for each weight movement. The average of the three pendulum readings may be graphed instead of plotting each of the readings only if the tan θ values measured among the pendulums are consistent.

2. Plot must be a straight line but it doesn't have to pass through the origin.

3. Curved line means unaccounted for free surface, gusting winds or the vessel is touching the bottom and should not be accepted.

X1.4 *Post Inclining:*

1. _____ Check drafts/freeboards to ensure consistency with first measurements.

(*a*) Note that draft readings are extreme (bottom of keel) while drafts from freeboard readings are molded (top of keel).

2. _____ Survey tanks if drafts have changed.

X1.5 *Survey of Items to Be Added, Removed, or Relocated:*

1. _____ Record weight, vertical center of gravity, longitudinal center of gravity, and transverse center of gravity (if required) for each item. Weights become more critical as the size of the vessel becomes smaller.

2. _____ Typical weights to add:

(*a*) Liferafts/lifesaving equipment;
(*b*) Seating;
(*c*) Liquids in engines and other machinery;
(*d*) Paneling;
(*e*) CO_2 bottles/firefighting equipment;
(*f*) Fenders;
(*g*) Deck coverings/tiles and underlayments;
(*h*) Cables for winches;
(*i*) Lines and hawsers;
(*j*) Engineroom insulation;
(*k*) Ventilation ducts;
(*l*) Galley equipment (stoves and refrigerators);
(*m*) Mattresses;
(*n*) Paint (on surfaces to be painted);
(*o*) Dampers;
(*p*) Electronic equipment in the pilothouse;
(*q*) Masts and navigation lights.

3. _____ Typical weights to deduct:

(*a*) Inclining weights and pendulum set-up;
(*b*) Personnel on board;
(*c*) Liquids on board (in tanks and bilges but excluding liquids in engines and other machinery);
(*d*) Workers equipment;
(*e*) Scrap metal;
(*f*) Scaffolding;
(*g*) Dunnage.

4. _____ Typical weights to relocate:

(*a*) Paneling;
(*b*) Lifesaving equipment;
(*c*) Fenders and mooring equipment;
(*d*) Fire extinguishing equipment.

X2. SAMPLE DATA SHEETS

_____ Stability Test Rough Data _____

Description of Vessel:

Name _____

Type _____

Builder _____

Hull Number _____

Vessel inclined at _____

_____

Date _____ Time _____

Test conducted by _____

Test witnessed by _____

Description of weather conditions _____

_____

Specific gravity of water _____

Temperature of water _____

Weights certified by:

Weigh master (certificate attached) ☐

Reviewing authority ☐

FIG. X2.1 Stability Test Rough Data

U.S. Department of Transportation
United States Coast Guard

Commanding Officer
United States Coast Guard
Marine Safety Center

400 7TH Street S.W.
Washington, DC 20590-0001
Staff Symbol: MSC-1
Phone: (202)366-6481
Fax: (202)366-3877

16710/P003804
Ser H1-9703578
November 05, 1997

Mr. John R. Bond
John R. Bond & Associates
P.O. Box 18454
Panama City Beach, FL 32417-18454

Subj: SPIRIT OF SACRAMENTO
85' x 27' x 5' Small Passenger Vessel (T)
Inclining Experiment Test Procedure

Ref: (a) Your letter dated October 29, 1997
(b) Navigation and Vessel Inspection Circular 17-91, "Guidelines for Conducting Stability Tests"

Dear Mr. Bond:

Enclosure (1), received with reference (a), has been reviewed and is marked "Approved." Unless otherwise noted, the inclining experiment shall be conducted in accordance with reference (b). Arrangements must be made with Marine Safety Office Mobile to provide a witness. Please coordinate directly with that office regarding the exact schedule for the test. Should there be any questions please feel free to contact the project officer, Lieutenant DeWane Ray, at either of the above numbers.

Sincerely,

P. J. ZOHORSKY
Lieutenant Commander, U. S. Coast Guard
Chief, MODU Branch
By direction of the Commanding Officer

Encl: (1) Inclining Test Procedure for SPIRIT OF SACRAMENTO

Copy: MSO Mobile w/ encl (1)

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL # of pages ▶ 5

To Liam Slein	From Pete Zohorsky
Dept./Agency	Phone # (202) 366-6496
Fax # (510) 246-2438	Fax # (202) 366-3877

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

FILE COPY

STABILITY TEST PLAN

The M/V Spirit of Sacramento, is to be operated as a commercial passenger vessel, carrying passengers on the Sacramento River for sight seeing and dinner cruises. It is currently owned by Channel Star Excursions, Inc., of Sacramento, Ca. The purpose of the intended stability test is to permit the owners to carry up to 400 passengers on rivers and sounds.

This plan is submitted in accordance with 46CFR 170.085, and as suggested in ASTM. Designation F 1321 - 90.

1. IDENTIFICATION OF VESSEL

Vessel Name: Spirit of Sacramento (ex Becky Thatcher)
Motor Vessel (Dubuque Boat & Boiler Co. Paddle Wheel Queen) (HIN # 349)
U. S. Coast Guard Certificate Official Number: (298095)
Home Port: Sacramento, California
Gross Tonnage: 89.0
Net Tonnage:
LOD: 85 ft.
Breadth: 27 ft. 5 feet 0" above the baseline. 25', 0" at the baseline
Depth: 5' 0"
Steel construction
Built: Dubuque Boat & Boiler Co., Dubuque, Iowa. 1965

Owner: Mr. Brian Gerhardt, President
Channel Star Excursions, Inc.
110 L Street
Old Sacramento, Ca. 95814

Operator: Channel Star Excursions, Inc.
110 L Street
Old Sacramento, Ca. 95814

Certificate Date: (Reactivation in process)

APPROVED
Subject to comments in
Marine Safety Center letter of
NOV 5 1997
Commanding Officer
USCG Marine Safety Center

2. Date and location of test:
L Street Landing
Old Town Sacramento, Ca. 95814

3. Inclining Weight Data.
- Estimated weights required to achieve 3 degree heel: 6.6 Ltons.

The intention is to use 24 calibrated 55 gallon covered water drums, in 4 groups This will provide weight increments of 3060 pounds.

FILE COPY

- From a preliminary information (provided), we anticipate a 3 degree angle of heel to each side.

4. Pendulum locations and lengths:
- A 11 foot long pendulum will be installed from the upper deck beam, 19' aft of bow.
- A 11 foot long pendulum will be installed from the upper deck beam, 63' aft of bow.
- A 11 foot long pendulum will be installed from the upper deck beam, 70' aft of bow.

5. Draft and Trim
The draft anticipated draft

@ FP	2' 6"
@ Amidships	3' 2"
@ AP	3' 11"

The load at this measurement includes EMPTY fuel, black water, and fresh water tanks. There will be no loose equipment on board.

Expected trim: .1.41' by stern.

Tank Conditions for test:
fuel: empty.
fwd water: empty
aft water: empty
Sanitary: empty

6. Items to be installed, removed, or relocated after the test:

- The Spirit of Sacramento has been renovated. Equipment required for operation are installed. It is anticipated that at a later date, the generators may be moved from the engine room to the new room under the galley. This will be addressed as a future modification in the test report.

The following information on test conduct is provided:
- The standard test described in NAVIC 17-91 will be conducted.
- A hydrometer will be used to determine the specific gravity of the water.
- Tanks will be empty. This will be verified at time of test. Outside measurements of tanks and locations will be verified for stability calculations.
- The boat test will be in the Sacramento River, in a sheltered location. Fresh water from the dock water system will be used to fill the barrels. The hydrometer and thermometer will be used to verify the specific gravity. Lines will be attached one side of the boat, and will be loose.

The observers will be on board in the locations that will be recorded and reported.

- 12 barrels (24 total) full of water (no free surface) will be located on the main deck, 13 feet to each side of centerline. All locations will be marked to insure repeatability.
- Freeboard readings will be taken in 5 locations each side. Drafts will be determined, and plotted. The zero heel attitude will be established.
- The barrels on the port side will be moved in groups of 6 from port to center line, (2 moves), and centerline to stbd (2 moves). They will then be returned to the original position, and the condition recorded. The process will be repeated, with all barrels moved to port. This will provide 4 data points to each side.
- The down flooding points will be identified, and locations documented.
- Any loose equipment on board will be removed, weighed, and relocation recorded.
- Anchor that is bow mounted will remain installed as part of the light boat.

Detailed description of computer software to be used during the Inclining Test:

PC based programs will be used in the preparation, and in the computations of the results:

Naval Architecture programs. SHIPHUL S2000 published by Northstar Software, Inc.

Spreadsheet: Microsoft Excel

7. Person conducting test:
   - John R. Bond, Naval Architect, of John R. Bond & Associates, Inc. Florida Registered Professional Engineer #045466

   (850) 230 0220. Fax 850 234 1032

8. Mooring Arrangements: The L street pier is the normal mooring of this boat. It is protected.

9. Schedule of events.

Prior to Test date.

- Forms for test will be prepared by the Naval Arch.
- Weather conditions for test day will be monitored by the Owner. If winds are predicted, the test will be delayed by the Owner, who will notify the Coast Guard.
- Nov. 10:

Have test weights certified by weight master, Sacramento.

- Nov. 11:

Determine all tanks empty, all bilges dry. Captain responsible.
Install test equipment, including:

- Freeboard measurement tapes.
- Pendulums.
- Locate weights. Mark and record the locations.

- Nov. 12

Check installation Check initial freeboard at 5 places, each side

- 9 AM PST. Conduct test in the company of Coast Guard Inspector. Complete the test, provide inspector with printed copy of recorded readings, and plotted results. Reload vessel.

10. In case of inclimate weather, the test will be delayed one work day. The inspector will be notified.

U.S. Department of Transportation

United States Coast Guard

Commanding Officer
United States Coast Guard
Marine Safety Center

400 7TH Street S.W.
Washington, DC 20590-0001
Staff Symbol: MSC-1
Phone: (202)366-6481
Fax: (202)366-3877

16710/P003804
Ser H1-9703578
November 05, 1997

Mr. John R. Bond
John R. Bond & Associates
P.O. Box 18454
Panama City Beach, FL 32417-18454

Subj: SPIRIT OF SACRAMENTO
85' x 27' x 5' Small Passenger Vessel (T)
Inclining Experiment Test Procedure

Ref: (a) Your letter dated October 29, 1997
(b) Navigation and Vessel Inspection Circular 17-91, "Guidelines for Conducting Stability Tests"

Dear Mr. Bond:

Enclosure (1), received with reference (a), has been reviewed and is marked "Approved." Unless otherwise noted, the inclining experiment shall be conducted in accordance with reference (b). Arrangements must be made with Marine Safety Office Mobile to provide a witness. Please coordinate directly with that office regarding the exact schedule for the test. Should there be any questions please feel free to contact the project officer, Lieutenant DeWane Ray, at either of the above numbers.

Sincerely,

P. J. ZOHORSKY
Lieutenant Commander, U. S. Coast Guard
Chief, MODU Branch
By direction of the Commanding Officer

Encl: (1) Inclining Test Procedure for SPIRIT OF SACRAMENTO

Copy: MSO Mobile w/ encl (1)

STABILITY TEST PLAN

The M/V Spirit of Sacramento, is to be operated as a commercial passenger vessel, carrying passengers on the Sacramento River for sight seeing and dinner cruises. It is currently owned by Channel Star Excursions, Inc., of Sacramento, Ca. The purpose of the intended stability test is to permit the owners to carry up to 400 passengers on rivers and sounds.

This plan is submitted in accordance with 46CFR 170.085, and as suggested in ASTM. Designation F 1321 - 90.

1. IDENTIFICATION OF VESSEL

Vessel Name: Spirit of Sacramento (ex Becky Thatcher)
Motor Vessel (Dubuque Boat & Boiler Co. Paddle Wheel Queen) (HIN # 349)
U. S. Coast Guard Certificate Official Number: (298096)
Home Port: Sacramento, California
Gross Tonnage: 89.0
Net Tonnage:
LOD: 85 ft.
Breadth: 27 ft. 5 feet 0" above the baseline. 25', 0" at the baseline
Depth: 5' 0"
Steel construction
Built: Dubuque Boat & Boiler Co., Dubuque, Iowa. 1965

Owner: Mr. Brian Gerhardt, President
Channel Star Excursions, Inc.
110 L Street
Old Sacramento, Ca. 95814

Operator: Channel Star Excursions, Inc.
110 L Street
Old Sacramento, Ca. 95814

Certificate Date: (Reactivation in process)

APPROVED
Subject to comments in
Marine Safety Center letter of
NOV 5 1997
Commanding Officer
USCG Marine Safety Center

2. Date and location of test:
L Street Landing
Old Town Sacramento, Ca. 95814

3. Inclining Weight Data.
- Estimated weights required to achieve 3 degree heel: 5.5 Ltons.

The intention is to use 24 calibrated 55 gallon covered water drums, in 4 groups This will provide weight increments of 3050 pounds.

- From a preliminary information (provided), we anticipate a 3 degree angle of heel to each side.

4. Pendulum locations and lengths:
- A 11 foot long pendulum will be installed from the upper deck beam, 19' aft of bow.
- A 11 foot long pendulum will be installed from the upper deck beam, 63' aft of bow.
- A 11 foot long pendulum will be installed from the upper deck beam, 70' aft of bow.

5. Draft and Trim
The draft anticipated draft
@ FP 2' 6"
@ Amidships 3' 2"
@ AP 3' 11"'
The load at this measurement includes EMPTY fuel, black water, and fresh water tanks. There will be no loose equipment on board.

Expected trim: .1.41' by stern.

Tank Conditions for test:
fuel: empty.
fwd water: empty
aft water: empty
Sanitary: empty

6. Items to be installed, removed, or relocated after the test:

- The Spirit of Sacramento has been renovated. Equipment required for operation are installed. It is anticipated that at a later date, the generators may be moved from the engine room to the new room under the galley. This will be addressed as a future modification in the test report.

The following information on test conduct is provided:
- The standard test described in NAVIC 17-91 will be conducted.
- A hydrometer will be used to determine the specific gravity of the water.
- Tanks will be empty. This will be verified at time of test. Outside measurements of tanks and locations will be verified for stability calculations.
- The boat test will be in the Sacramento River, in a sheltered location. Fresh water from the dock water system will be used to fill the barrels. The hydrometer and thermometer will be used to verify the specific gravity. Lines will be attached one side of the boat, and will be loose.

The observers will be on board in the locations that will be recorded and reported.

- 12 barrels (24 total) full of water (no free surface) will be located on the main deck, 13 feet to each side of centerline. All locations will be marked to insure repeatability.
- Freeboard readings will be taken in 5 locations each side. Drafts will be determined, and plotted. The zero heel attitude will be established.
- The barrels on the port side will be moved in groups of 6 from port to center line, (2 moves), and centerline to stbd (2 moves). They will then be returned to the original position, and the condition recorded. The process will be repeated, with all barrels moved to port. This will provide 4 data points to each side.
- The down flooding points will be identified, and locations documented.
- Any loose equipment on board will be removed, weighed, and relocation recorded.
- Anchor that is bow mounted will remain installed as part of the light boat.

Detailed description of computer software to be used during the Inclining Test:

PC based programs will be used in the preparation, and in the computations of the results:

Naval Architecture programs. SHIPHUL S2000 published by Northstar Software, Inc.

Spreadsheet: Microsoft Excel

7. Person conducting test:
   - John R. Bond, Naval Architect, of John R. Bond & Associates, Inc. Florida Registered Professional Engineer #046456
   (850) 230 0220. Fax 850 234 1032

8. Mooring Arrangements: The L street pier is the normal mooring of this boat. It is protected.

9. Schedule of events.

Prior to Test date.

- Forms for test will be prepared by the Naval Arch.
- Weather conditions for test day will be monitored by the Owner. If winds are predicted, the test will be delayed by the Owner, who will notify the Coast Guard.
- Nov. 10:

Have test weights certified by weight master, Sacramento.

- Nov. 11:
  Determine all tanks empty, all bilges dry. Captain responsible.
Install test equipment, including:
  - Freeboard measurement tapes.
  - Pendulums.
  - Locate weights. Mark and record the locations.
- Nov. 12
  Check installation Check initial freeboard at 5 places, each side
- 9 AM PST. Conduct test in the company of Coast Guard Inspector.
  Complete the test, provide Inspector with printed copy of recorded readings, and plotted results. Reload vessel.

10. In case of inclimate weather, the test will be delayed one work day. The inspector will be notified.

U.S. Department of Transportation
United States Coast Guard

Commanding Officer
United States Coast Guard
Marine Safety Center

400 7TH Street S.W.
Washington, DC 20590-0001
Staff Symbol: MSC-1
Phone: (202)366-6481
Fax: (202)366-3877

16710/P003804
Ser H1-9702771
August 26, 1997

Mr. Brian M. Gerhart
Channel Star Excursions, Inc.
110 L Street
Old Sacramento, CA 95814

Subj: SPIRIT OF SACRAMENTO, O.N. 510560
Dubuque Hull No. 358
84.2' x 27.2' x 5.2' Small Passenger Vessel (K)
Lightship Values

Ref: (a) Your fax dated August 21, 1997
(b) Marine Safety Center Technical Note 04-95, "Lightship Change determinations; Weight-Moment Calculations vs. Deadweight Survey vs. Full Stability Test"

Dear Mr. Gerhart:

In reference (a) you proposed new light ship values based upon structural modifications to the subject vessel. These changes amount to a 5.9 percent aggregate change in the vessel's light ship displacement. Our policy as outlined in reference (b) requires as a minimum a deadweight survey to determine the new lightship values. If the results of the deadweight survey are not within 1% of the estimated changes in reference (a) we may require a full inclining experiment. We must review your stability test procedure prior to the test and, following our approval of the procedure, the test must be witnessed by an authorized Coast Guard Representative. The procedure must contain all items listed in 46 CFR 170.185(g). The plans required by 46 CFR 170.075 must be submitted to this office in order to conduct the review of the vessel's lightship values and stability. Should there be any questions please feel free to contact the project officer, Lieutenant DeWane Ray, at the above numbers.

Sincerely,

P. J. ZOHORSKY
Lieutenant Commander, U. S. Coast Guard
Chief, MODU Branch
By direction of the Commanding Officer

Copy: MSO San Fransisco
MSD Concord

OPTIONAL FORM 99 (7-90)
FAX TRANSMITTAL # of pages ► 1

To Jim Stewart	From DeWane Ray G-MSC
Dept./Agency MSO SF	Phone # 202 366-6497
Fax # 510 437-3114	Fax # " 3877

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

JOHN R BOND & ASSOCIATES, INC.
NAVAL ARCHITECTS, MARINE ENGINEERS
PO. BOX 18454,
PANAMA CITY BEACH, FL. 32417
904-230-0220, FAX 904 234 1032

October 17, 1996

Officer In Charge
U. S. Coast Guard Marine Safety Office
150 N. Royal Street
P. O. Box 2924
Mobile, Alabama, 36652-2924

Attention: Lt. Cdr. Ferdello

Subject: Sprit of Sacramento (ex Becky Thatcher), Official Number D51058

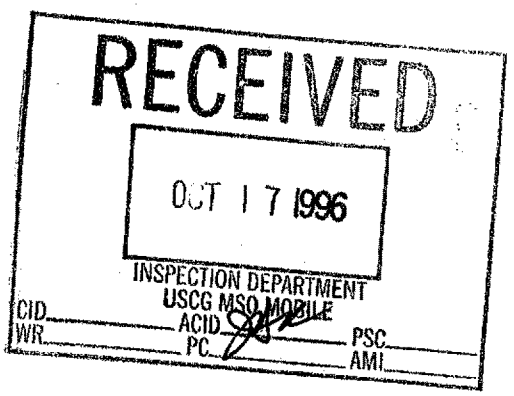
Ref: Freedom of Information Act

Dear Sir,

John R. Bond and Associates has been retained by the owners of subject vessel to gather information and other tasks on the subject vessel. We request any and all information on this case under the referenced act (FOIA).

Thank you for your consideration.

Sincerely Yours
John R. Bond, PE



12/5/96
COPY OF OUR INSPECTION CASE FILE (AT THIS TIME) HAND DELIVERED TO MR. JOHN BOND AT INSPECTION OFFICE, MSO MOBILE.
J Allen CDR, VSIG

Channel Star Excursions, Inc

110 L Street
Old Sacramento, CA 95814
916-552-2939 • 916-552-2942 (Fax)

March 13, 1997

CWO B.J. Dunson
USCG Marine Safety Office
P.O. Box 2924
Mobile, AL 36652-2924
FAX (334)690-7251

Dear Mr. Dunson:

Enclosed please find copies of repairs and replacement of shafts and wheels on M.V. Spirit of Sacramento (ON 510560) in June of 1996.

Also be advised that I request you issue credit drydock valid for a period of 5 years. The "Spirit" will be permanently based and operated from Sacramento, California. The vessel is intended to remain in fresh waters at all times and operated in accordance with all requirements of its Certificate of Operation.

Thank you for your attention to these matters.

Sincerely,

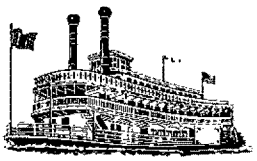
Brian M. Gerhart
President
Channel Star Excursions, Inc.

Enclosures

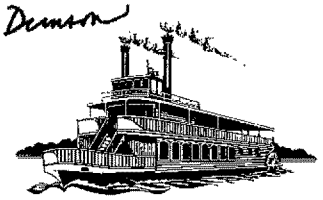
BMG/cej

c:\wp51p\doc\dunson.let

RECEIVED
MAR 17 1997
INSPECTION DEPARTMENT
USCG MSO MOBILE
CID ACID PSC
WR PC AMI
CWO Dunson



Historic Riverboat Dining & Cruising



U.S. Department of Transportation
United States Coast Guard

Commanding Officer
United States Coast Guard
Marine Safety Center

400 7TH Street S.W.
Washington, DC 20590-0001
Staff Symbol: MSC-1
Phone: (202)366-6481
Fax: (202)366-3877

9/5/97
CWO H 9/8/97
file

16710/P003804
Ser H1-9702771
August 26, 1997

Mr. Brian M. Gerhart
Channel Star Excursions, Inc.
110 L Street
Old Sacramento, CA 95814

Subj: SPIRIT OF SACRAMENTO, O.N. 510560
Dubuque Hull No. 358
84.2' x 27.2' x 5.2' Small Passenger Vessel (K)
Lightship Values

Ref: (a) Your fax dated August 21, 1997
(b) Marine Safety Center Technical Note 04-95, "Lightship Change determinations; Weight-Moment Calculations vs. Deadweight Survey vs. Full Stability Test"

Dear Mr. Gerhart:

In reference (a) you proposed new light ship values based upon structural modifications to the subject vessel. These changes amount to a 5.9 percent aggregate change in the vessel's light ship displacement. Our policy as outlined in reference (b) requires as a minimum a deadweight survey to determine the new lightship values. If the results of the deadweight survey are not within 1% of the estimated changes in reference (a) we may require a full inclining experiment. We must review your stability test procedure prior to the test and, following our approval of the procedure, the test must be witnessed by an authorized Coast Guard Representative. The procedure must contain all items listed in 46 CFR 170.185(g). The plans required by 46 CFR 170.075 must be submitted to this office in order to conduct the review of the vessel's lightship values and stability. Should there be any questions please feel free to contact the project officer, Lieutenant DeWane Ray, at the above numbers.

Sincerely,

P. J. ZOHORSKY
Lieutenant Commander, U. S. Coast Guard
Chief, MODU Branch
By direction of the Commanding Officer

Copy: MSO San Fransisco
MSD Concord

JOHN R. BOND & ASSOCIATES
P. O. Box 18454
Panama City Beach, Fl. 32417-18454
(904) 230 0220 FAX (904) 234 1032

Nov. 26, 1996

Commanding Officer
USCG Marine Safety Office
P. O. 2924
150 N. Royal St.
Mobile, Al. 36652-2924

Encl.: Spirit of Sacramento Structural Plan
Spirit of Sacramento Bottom Plate Replacement Plan
Stability Calculations

Re: Spirit of Sacramento Official Number 298095

Dear Sir,

I have been retained by River Boat Cruises, owners of Spirit of Sacramento, to evaluate the vessel, and to produce certain plans for the planned modification of this hull.

The boat is now under repair at the Runyan Yard in Pensacola, Fl. The replacement of the bottom plate, as required by your Inspector is in process. This progress was reported in your office on 22 November. Enclosed is a plan illustrating the plate that will be replaced, and is submitted in accordance with your request.

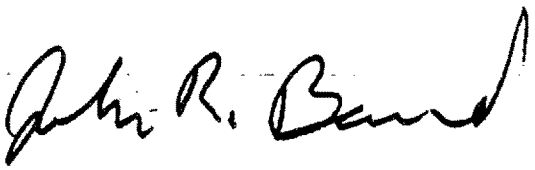
The owners plan to modify this boat to be more useful in their operation. These modifications will be planned and generally completed in California. They do wish to modify the hull, preparing for removal of the generators from the engine room, and installing them in the aft compartment. To make room for this installation, the bottom of the center portion of the aft hull will be lowered to the hull bottom line. The proposed structural modification will be in accordance with the enclosed drawing, "Bottom Structural Plan for Alteration, Generator Room Addition".

The Stability of the vessel was checked to insure the feasibility of this modification. The accuracy of our assumptions is in doubt, since we do not have recent checks on the vessel stability. We understand that a stability test will be required prior to activation of the Certificate of Inspection. The calculations enclosed assume the displacement and centers of gravity documented in the 1967 Incline Test, as modified by the addition of one generator. The future modifications include the moving of the generators, adding a kitchen, and moving the heads forward. The following information is provided:

1. Intact stability for light boat.
2. Intact stability for full passenger load, 75% fuel load, 75% water, and 10% black water.

3. Damage stability for case 2.

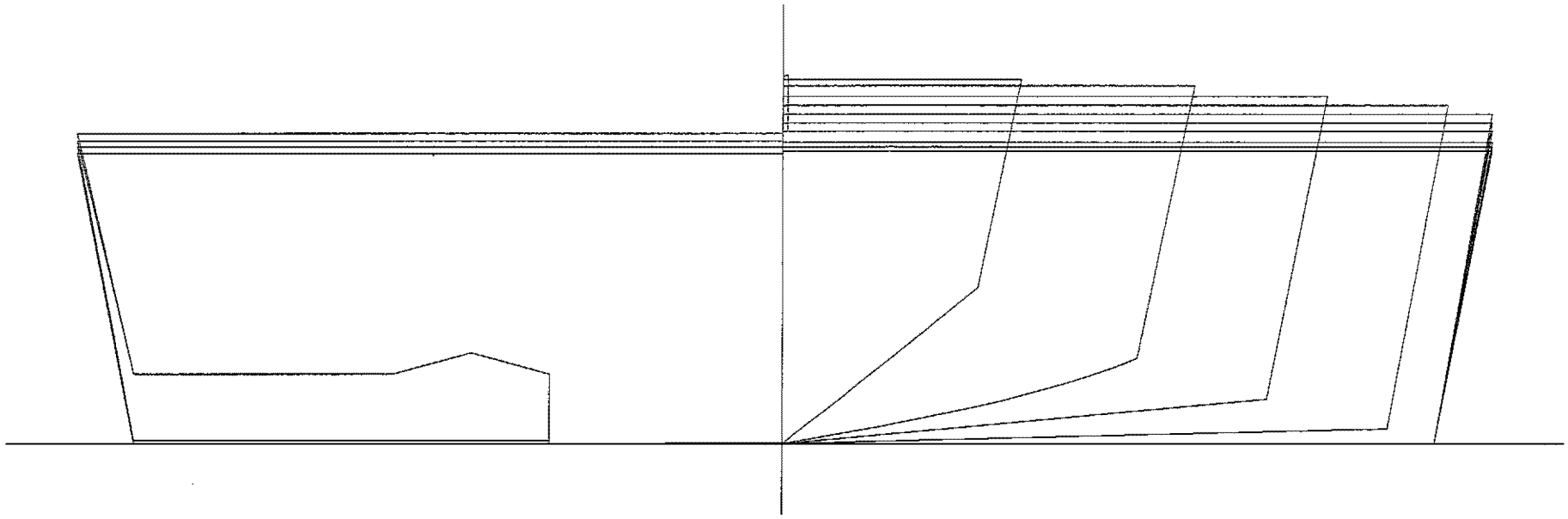
The owners plan to proceed to California with this boat under its own power. To do this, they plan to store fuel in the new black water tank, and in the existing fresh water tanks. They plan to transfer the fuel from these storage tank to the fuel tank via a suction hose in the tank fill connection, to a portable fuel pump, pumped through a hose to the fuel fill connection. This arrangement would not be acceptable for craft with passengers aboard. They request that the Certificate for Inspection be considered "turned to the wall", and that they be permitted to proceed on this basis.



John R. Bond, PE
Naval Architect, Marine Engineer

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO - 96/11/22 18:32:04

HULL BODY PLAN



SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 15:40:59

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

LIGHT BOAT, PROPOSED

ITEM DESCRIPTION	WEIGHT (LTON)	VCG (FT)	LCG (FT)	TCG (FT)	FS MOM (FT-LTON)
ASSUMED LIGHT CONDITION	120.805	8.930	-5.424	.000	.00
CAT GEN REMOVAL	-1.805	3.000	-27.500	.000	.00
CUM GEN REMOVAL	-.686	3.000	-27.500	.000	.00
2 CAT GEN ADD	3.611	3.000	-37.500	.000	.00
HULL STR ADD	.245	.500	-37.500	.000	.00
A60 BHD	1.020	9.000	-32.910	.000	.00
KITCHEN EQUIP.	1.000	7.000	-40.000	.000	.00
HEAD REMOVAL	-1.000	6.000	-38.000	.000	.00
NEW HEAD ADD	1.000	6.000	27.500	.000	.00
TOTAL FIXED WEIGHT	124.190	8.845	-5.954	.000	.00
TOTAL TANK WEIGHT	.000	.000	.000	.000	.00
TOTAL SHIP WEIGHT	124.190	8.845	-5.954	.000	.00

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 15:40:59

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

INTACT STABILITY

LIGHT BOAT, PROPOSED

SHIP WEIGHT SUMMARY

	WT (LTON)	VCG (FT)	LCG (FT)	TCG (FT)	FS MOM (FT-LTON)
FIXED WT	124.190	8.845	-5.954	.000	.000
TANK FLUID	.000	.000	.000	.000	.000
TOTAL INTACT SHIP	124.190	8.845	-5.954	.000	.000

INTACT CURVES OF STATIC STABILITY - FREE TO TRIM - 1.000 SP GR

HEEL (DEG)	RA (FT)	RA AREA (FT-DEG)	TCB (FT)	VCB (FT)	LCB (FT)	DRAFT (FT)	TRIM (FT)
-20.000	-3.825	.000	-6.479	2.228	-5.954	1.975	.898
-15.000	-3.715	.000	-5.685	1.982	-5.954	2.209	.752
-10.000	-2.759	.000	-4.073	1.631	-5.954	2.353	.782
-5.000	-1.380	.000	-2.040	1.364	-5.954	2.389	.821
.000	.000	.000	** STATIC HEEL ANGLE **				
.000	.000	.000	.000	1.275	-5.954	2.399	.823
5.000	1.380	3.450	2.040	1.364	-5.954	2.389	.821
10.000	2.759	13.886	4.073	1.631	-5.954	2.353	.782
15.000	3.715	30.333	5.685	1.982	-5.954	2.209	.752
18.277	3.856	42.821	** ANGLE OF MAXIMUM RIGHTING ARM **				
20.000	3.825	49.447	6.479	2.228	-5.954	1.975	.898
25.000	3.512	67.919	6.884	2.393	-5.954	1.716	1.145
30.000	2.999	84.266	7.118	2.515	-5.954	1.432	1.467
35.000	2.371	97.728	7.263	2.606	-5.954	1.118	1.830
40.000	1.672	107.857	7.357	2.678	-5.954	.760	2.253
45.000	.928	114.373	7.421	2.737	-5.954	.340	2.771
50.000	.158	117.095	7.466	2.786	-5.954	-.163	3.397
51.013	.000	117.177	** RANGE HEEL ANGLE **				
60.000	-1.414	117.177	7.524	2.868	-5.954	-1.587	5.209
70.000	-2.971	117.177	7.555	2.934	-5.954	-4.282	8.705
80.000	-4.450	117.177	7.571	2.991	-5.954	-12.057	18.845
89.000	-5.672	117.177	7.575	3.040	-5.954	-149.580	199.281

NOTE: DATA AT OTHER THAN INPUT HEEL ANGLE VALUES ARE INTERPOLATED.

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 15:40:59

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

INTACT STABILITY

LIGHT BOAT, PROPOSED

TRIM AND INITIAL UPRIGHT (ZERO HEEL) STABILITY

DRAFT AMIDSHIPS, FT	2.399	KMT, FT	+ 24.599
TRIM (ON LBP, + AFT), FT	.823	KG, FT	- 8.845
LCB (+ FWD MID), FT	-5.954	FSC, FT	- .000
LCF (+ FWD MID), FT	-4.387		
MT1, FT-LTON/IN	26.460		========
DRAFT AT FWD MARKS, FT	1.997	GMT, FT	15.754
DRAFT AT AFT MARKS, FT	2.800		

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 15:40:59

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

STABILITY EVALUATION

LIGHT BOAT, PROPOSED

USCG - 46 CFR 170.173(C) - MODIFIED RAHOLA CRITERIA (LOW MAX RA ANGLE)

RIGHTING ARM DATA TABLE

HEEL (DEG)	RA (FT)	TCB (FT)	VCB (FT)	TCG (FT)	VCG (FT)	DRAFT (FT)	TRIM (FT)
-20.000	-3.825	-6.479	2.228	.000	8.845	1.975	.898
-15.000	-3.715	-5.685	1.982	.000	8.845	2.209	.752
-10.000	-2.759	-4.073	1.631	.000	8.845	2.353	.782
-5.000	-1.380	-2.040	1.364	.000	8.845	2.389	.821
.000	.000	.000	1.275	.000	8.845	2.399	.823
5.000	1.380	2.040	1.364	.000	8.845	2.389	.821
10.000	2.759	4.073	1.631	.000	8.845	2.353	.782
15.000	3.715	5.685	1.982	.000	8.845	2.209	.752
20.000	3.825	6.479	2.228	.000	8.845	1.975	.898
25.000	3.512	6.884	2.393	.000	8.845	1.716	1.145
30.000	2.999	7.118	2.515	.000	8.845	1.432	1.467
35.000	2.371	7.263	2.606	.000	8.845	1.118	1.830
40.000	1.672	7.357	2.678	.000	8.845	.760	2.253
45.000	.928	7.421	2.737	.000	8.845	.340	2.771
50.000	.158	7.466	2.786	.000	8.845	-.163	3.397
60.000	-1.414	7.524	2.868	.000	8.845	-1.587	5.209
70.000	-2.971	7.555	2.934	.000	8.845	-4.282	8.705
80.000	-4.450	7.571	2.991	.000	8.845	-12.057	18.845
89.000	-5.672	7.575	3.040	.000	8.845	-149.580	199.281

CRITERION VALUES AT ACTUAL SHIP VCG (8.845 FT)

CRITERION	ACTUAL VALUE	ALLOWABLE VALUE	STATUS
RA AREA TO 40.0 DEG, FT-DEG	107.861	16.900 (MIN)	PASS
RA AREA FROM 30.0 TO 40.0 DEG, FT-DEG	23.594	5.600 (MIN)	PASS
ANGLE OF MAX RA, DEG	18.274	15.000 (MIN)	PASS
RA AREA TO ANGLE OF MAX RA, FT-DEG	42.808	12.493 (MIN)	PASS
GMT, FT	15.754	.490 (MIN)	PASS

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 15:40:59

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

STABILITY EVALUATION

LIGHT BOAT, PROPOSED

USCG - 46 CFR 170.173(C) - MODIFIED RAHOLA CRITERIA (LOW MAX RA ANGLE)

CRITERION VALUES AT LIMITING SHIP VCG (12.058 FT)

CRITERION	ACTUAL VALUE	ALLOWABLE VALUE	STATUS
RA AREA TO 40.0 DEG, FT-DEG	65.204	16.900 (MIN)	PASS
RA AREA FROM 30.0 TO 40.0 DEG, FT-DEG	5.601	5.600 (MIN)	PASS
ANGLE OF MAX RA, DEG	16.224	15.000 (MIN)	PASS
RA AREA TO ANGLE OF MAX RA, FT-DEG	27.609	12.876 (MIN)	PASS
GMT, FT	12.541	.490 (MIN)	PASS

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

LOADED BOAT, 75% FUEL, PROPOSED

TANK CONTENTS INPUT

TANK ID	FLUID FRACTION	FLUID WT (LTON)	FLUID SPEC GRAVITY	COMPARTMENTS INCLUDED
001	.750		.820	010 011
003	.750		1.000	008
004	.750		1.000	009
002	.100		1.000	007 012 013 014 015

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 17:19:10

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

LOADED BOAT, 75% FUEL, PROPOSED

ITEM DESCRIPTION	WEIGHT (LTON)	VCG (FT)	LCG (FT)	TCG (FT)	FS MOM (FT-LTON)
CURRENT LIGHT CONDITION	120.805	8.930	-5.424	.000	.00
CAT GEN REMOVAL	-1.805	3.000	-27.500	.000	.00
CUM GEN REMOVAL	-.686	3.000	-27.500	.000	.00
PASS, 220, @160#, MD	15.714	8.500	.000	.000	.00
PASS, 130 2160#, 01 DK	9.285	16.500	.000	.000	.00
PASS, 50 @ 160#	3.571	24.500	.000	.000	.00
5 CREW, MNDK,160#	.357	8.500	.000	.000	.00
2CREW, PH, 160#	.143	32.500	12.500	.000	.00
CAT GEN ADD	3.611	3.000	-37.500	.000	.00
HULL STRUCT ADD	.245	.500	-37.500	.000	.00
A60 BHD ADD	1.020	9.000	-32.910	.000	.00
KIT EQUIP	1.000	7.000	-40.000	.000	.00
HEAD REMOVAL	-1.000	6.000	-38.000	.000	.00
NEW HEAD	1.000	6.000	27.500	.000	.00
TOTAL FIXED WEIGHT	153.260	9.659	-4.813	.000	.00
TANKS (AT ZERO TRIM & HEEL)					
FUEL TANK	5.900	2.562	28.222	.000	6.83
FWD WATER	3.201	3.162	14.250	.000	20.41
AFT WATER	4.924	3.163	.000	.000	74.32
NEW DIRTY WATER	.427	2.155	21.000	.000	20.41
TOTAL TANK WEIGHT	14.452	2.887	15.298	.000	121.96
TOTAL SHIP WEIGHT	167.712	9.076	-3.080	.000	121.96

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 17:19:10

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

INTACT STABILITY

LOADED BOAT, 75% FUEL, PROPOSED

SHIP WEIGHT SUMMARY (TANK FLUID AT ZERO HEEL AND TRIM)

	WT (LTON)	VCG (FT)	LCG (FT)	TCG (FT)	FS MOM (FT-LTON)
FIXED WT	153.260	9.659	-4.813	.000	.000
TANK FLUID (FROZEN)	14.452	2.887	15.298	.000	121.961
TOTAL INTACT SHIP	167.712	9.076	-3.080	.000	121.961

INTACT CURVES OF STATIC STABILITY - FREE TO TRIM - 1.000 SP GR

HEEL (DEG)	RA (FT)	RA AREA (FT-DEG)	TCB (FT)	VCB (FT)	LCB (FT)	DRAFT (FT)	TRIM (FT)
-20.000	-2.249	.000	-5.076	2.432	-3.080	3.268	-.534
-15.000	-2.325	.000	-4.435	2.233	-3.080	3.213	-.527
-10.000	-1.734	.000	-3.145	1.952	-3.080	3.207	-.469
-5.000	-.857	.000	-1.565	1.744	-3.080	3.238	-.439
.000	.000	.000	.000	1.675	-3.080	3.247	-.436
.000	.000	.000	** STATIC HEEL ANGLE **				
5.000	.857	2.138	1.565	1.744	-3.080	3.238	-.439
10.000	1.734	8.670	3.145	1.952	-3.080	3.207	-.469
15.000	2.325	19.018	4.435	2.233	-3.080	3.213	-.527
16.671	2.358	22.940	** ANGLE OF MAXIMUM RIGHTING ARM **				
20.000	2.249	30.668	5.076	2.432	-3.080	3.268	-.534
25.000	1.819	40.940	5.386	2.558	-3.080	3.323	-.500
30.000	1.236	48.630	5.559	2.648	-3.080	3.383	-.437
35.000	.577	53.185	5.666	2.716	-3.080	3.450	-.338
39.127	.000	54.384	** RANGE HEEL ANGLE **				
40.000	-.125	54.384	5.738	2.771	-3.080	3.528	-.206
45.000	-.849	54.384	5.787	2.816	-3.080	3.616	-.039
50.000	-1.582	54.384	5.822	2.853	-3.080	3.722	.157
60.000	-3.031	54.384	5.866	2.916	-3.080	4.021	.703
70.000	-4.408	54.384	5.890	2.968	-3.080	4.588	1.716
80.000	-5.660	54.384	5.903	3.015	-3.080	6.224	4.616
89.000	-6.644	54.384	5.907	3.055	-3.080	35.262	55.028

NOTE: DATA AT OTHER THAN INPUT HEEL ANGLE VALUES ARE INTERPOLATED.

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 17:19:10

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

INTACT STABILITY

LOADED BOAT, 75% FUEL, PROPOSED

TRIM AND INITIAL UPRIGHT (ZERO HEEL) STABILITY

DRAFT AMIDSHIPS, FT	3.247	KMT, FT	+ 19.568
TRIM (ON LBP, + AFT), FT	-.436	KG, FT	- 9.076
LCB (+ FWD MID), FT	-3.080	FSC, FT	- .727
LCF (+ FWD MID), FT	-4.032		
MT1, FT-LTON/IN	27.361		========
DRAFT AT FWD MARKS, FT	3.460	GMT, FT	9.765
DRAFT AT AFT MARKS, FT	3.035		

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 17:19:10

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

STABILITY EVALUATION

LOADED BOAT, 75% FUEL, PROPOSED

USCG - 46 CFR 170.170 - WEATHER CRITERION (MINIMUM GMT)

RIGHTING ARM DATA TABLE

HEEL (DEG)	RA* (FT)	TCB (FT)	VCB (FT)	TCG (FT)	VCG (FT)	DRAFT (FT)	TRIM (FT)
-20.000	-2.249	-5.076	2.432	.000	9.076	3.268	-.534
-15.000	-2.325	-4.435	2.233	.000	9.076	3.213	-.527
-10.000	-1.734	-3.145	1.952	.000	9.076	3.207	-.469
-5.000	-.857	-1.565	1.744	.000	9.076	3.238	-.439
.000	.000	.000	1.675	.000	9.076	3.247	-.436
5.000	.857	1.565	1.744	.000	9.076	3.238	-.439
10.000	1.734	3.145	1.952	.000	9.076	3.207	-.469
15.000	2.325	4.435	2.233	.000	9.076	3.213	-.527
20.000	2.249	5.076	2.432	.000	9.076	3.268	-.534
25.000	1.819	5.386	2.558	.000	9.076	3.323	-.500
30.000	1.236	5.559	2.648	.000	9.076	3.383	-.437
35.000	.577	5.666	2.716	.000	9.076	3.450	-.338
40.000	-.125	5.738	2.771	.000	9.076	3.528	-.206
45.000	-.849	5.787	2.816	.000	9.076	3.616	-.039
50.000	-1.582	5.822	2.853	.000	9.076	3.722	.157
60.000	-3.031	5.866	2.916	.000	9.076	4.021	.703
70.000	-4.408	5.890	2.968	.000	9.076	4.588	1.716
80.000	-5.660	5.903	3.015	.000	9.076	6.224	4.616
89.000	-6.644	5.907	3.055	.000	9.076	35.262	55.028

* INCLUDES EFFECT OF FREE SURFACE MOMENT (121.961 FT-LTON).

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 17:19:10

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

STABILITY EVALUATION

LOADED BOAT, 75% FUEL, PROPOSED

USCG - 46 CFR 170.173(C) - MODIFIED RAHOLA CRITERIA (LOW MAX RA ANGLE)

RIGHTING ARM DATA TABLE

HEEL (DEG)	RA* (FT)	TCB (FT)	VCB (FT)	TCG (FT)	VCG (FT)	DRAFT (FT)	TRIM (FT)
-20.000	-2.249	-5.076	2.432	.000	9.076	3.268	-.534
-15.000	-2.325	-4.435	2.233	.000	9.076	3.213	-.527
-10.000	-1.734	-3.145	1.952	.000	9.076	3.207	-.469
-5.000	-.857	-1.565	1.744	.000	9.076	3.238	-.439
.000	.000	.000	1.675	.000	9.076	3.247	-.436
5.000	.857	1.565	1.744	.000	9.076	3.238	-.439
10.000	1.734	3.145	1.952	.000	9.076	3.207	-.469
15.000	2.325	4.435	2.233	.000	9.076	3.213	-.527
20.000	2.249	5.076	2.432	.000	9.076	3.268	-.534
25.000	1.819	5.386	2.558	.000	9.076	3.323	-.500
30.000	1.236	5.559	2.648	.000	9.076	3.383	-.437
35.000	.577	5.666	2.716	.000	9.076	3.450	-.338
40.000	-.125	5.738	2.771	.000	9.076	3.528	-.206
45.000	-.849	5.787	2.816	.000	9.076	3.616	-.039
50.000	-1.582	5.822	2.853	.000	9.076	3.722	.157
60.000	-3.031	5.866	2.916	.000	9.076	4.021	.703
70.000	-4.408	5.890	2.968	.000	9.076	4.588	1.716
80.000	-5.660	5.903	3.015	.000	9.076	6.224	4.616
89.000	-6.644	5.907	3.055	.000	9.076	35.262	55.028

* INCLUDES EFFECT OF FREE SURFACE MOMENT (121.961 FT-LTON).

CRITERION VALUES AT ACTUAL SHIP VCG (9.076 FT)

CRITERION	ACTUAL VALUE	ALLOWABLE VALUE	STATUS
RA AREA TO 40.0 DEG, FT-DEG	54.384	16.900 (MIN)	PASS
RA AREA FROM 30.0 TO 40.0 DEG, FT-DEG	5.754	5.600 (MIN)	PASS
ANGLE OF MAX RA, DEG	16.674	15.000 (MIN)	PASS
RA AREA TO ANGLE OF MAX RA, FT-DEG	22.947	12.792 (MIN)	PASS
GMT, FT	9.765	.490 (MIN)	PASS

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 17:19:10

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

STABILITY EVALUATION

LOADED BOAT, 75% FUEL, PROPOSED

USCG - 46 CFR 170.173(C) - MODIFIED RAHOLA CRITERIA (LOW MAX RA ANGLE)

CRITERION VALUES AT LIMITING SHIP VCG (9.105 FT)

CRITERION	ACTUAL VALUE	ALLOWABLE VALUE	STATUS
RA AREA TO 40.0 DEG, FT-DEG	54.008	16.900 (MIN)	PASS
RA AREA FROM 30.0 TO 40.0 DEG, FT-DEG	5.603	5.600 (MIN)	PASS
ANGLE OF MAX RA, DEG	16.651	15.000 (MIN)	PASS
RA AREA TO ANGLE OF MAX RA, FT-DEG	22.821	12.796 (MIN)	PASS
GMT, FT	9.736	.490 (MIN)	PASS

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 17:19:10

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

STABILITY EVALUATION

LOADED BOAT, 75% FUEL, PROPOSED

USCG - 46 CFR 171.050 - PASSENGER HEELING CRITERION

RIGHTING ARM DATA TABLE

HEEL (DEG)	RA* (FT)	TCB (FT)	VCB (FT)	TCG (FT)	VCG (FT)	DRAFT (FT)	TRIM (FT)
-20.000	-2.249	-5.076	2.432	.000	9.076	3.268	-.534
-15.000	-2.325	-4.435	2.233	.000	9.076	3.213	-.527
-10.000	-1.734	-3.145	1.952	.000	9.076	3.207	-.469
-5.000	-.857	-1.565	1.744	.000	9.076	3.238	-.439
.000	.000	.000	1.675	.000	9.076	3.247	-.436
5.000	.857	1.565	1.744	.000	9.076	3.238	-.439
10.000	1.734	3.145	1.952	.000	9.076	3.207	-.469
15.000	2.325	4.435	2.233	.000	9.076	3.213	-.527
20.000	2.249	5.076	2.432	.000	9.076	3.268	-.534
25.000	1.819	5.386	2.558	.000	9.076	3.323	-.500
30.000	1.236	5.559	2.648	.000	9.076	3.383	-.437
35.000	.577	5.666	2.716	.000	9.076	3.450	-.338
40.000	-.125	5.738	2.771	.000	9.076	3.528	-.206
45.000	-.849	5.787	2.816	.000	9.076	3.616	-.039
50.000	-1.582	5.822	2.853	.000	9.076	3.722	.157
60.000	-3.031	5.866	2.916	.000	9.076	4.021	.703
70.000	-4.408	5.890	2.968	.000	9.076	4.588	1.716
80.000	-5.660	5.903	3.015	.000	9.076	6.224	4.616
89.000	-6.644	5.907	3.055	.000	9.076	35.262	55.028

* INCLUDES EFFECT OF FREE SURFACE MOMENT (121.961 FT-LTON).

HEELING ARM DATA

WT OF PSNGRS, LTON	28.540	PSNGR CG FROM CL, FT	6.800
HEELING MOMENT, FT-LTON	194.072	SHIP DISPL, LTON	167.712
HEELING ARM, FT	1.157		

CRITERION VALUES AT ACTUAL SHIP VCG (9.076 FT)

CRITERION	ACTUAL VALUE	ALLOWABLE VALUE	STATUS
GMT (10.0 DEG T ANGLE), FT	9.765	6.563 (MIN)	PASS

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 17:19:10

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

STABILITY EVALUATION

LOADED BOAT, 75% FUEL, PROPOSED

USCG - 46 CFR 171.050 - PASSENGER HEELING CRITERION

CRITERION VALUES AT LIMITING SHIP VCG (12.277 FT)

CRITERION	ACTUAL VALUE	ALLOWABLE VALUE	STATUS
GMT (10.0 DEG. T ANGLE), FT	6.564	6.563 (MIN)	PASS

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

LOADED BOAT, 75% FUEL, PROPOSED

TANK CONTENTS INPUT

TANK ID	FLUID FRACTION	FLUID WT (LTON)	FLUID SPEC GRAVITY	COMPARTMENTS INCLUDED
001	.750		.820	010 011
003	.750		1.000	008
004	.750		1.000	009
002	.100		1.000	007 012 013 014 015

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 18:17:53

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

LOADED BOAT, 75% FUEL, PROPOSED

ITEM DESCRIPTION	WEIGHT (LTON)	VCG (FT)	LCG (FT)	TCG (FT)	FS MOM (FT-LTON)
CURRENT LIGHT CONDITION	120.805	8.930	-5.424	.000	.00
CAT GEN REMOVAL	-1.805	3.000	-27.500	.000	.00
CUM GEN REMOVAL	-.686	3.000	-27.500	.000	.00
PASS, 220, @160#, MD	15.714	8.500	.000	.000	.00
PASS, 130 2160#, 01 DK	9.285	16.500	.000	.000	.00
PASS, 50 @ 160#	3.571	24.500	.000	.000	.00
5 CREW, MNDK,160#	.357	8.500	.000	.000	.00
2CREW, PH, 160#	.143	32.500	12.500	.000	.00
CAT GEN ADD	3.611	3.000	-37.500	.000	.00
HULL STRUCT ADD	.245	.500	-37.500	.000	.00
A60 BHD ADD	1.020	9.000	-32.910	.000	.00
KIT EQUIP	1.000	7.000	-40.000	.000	.00
HEAD REMOVAL	-1.000	6.000	-38.000	.000	.00
NEW HEAD	1.000	6.000	27.500	.000	.00
TOTAL FIXED WEIGHT	153.260	9.659	-4.813	.000	.00
TANKS (AT ZERO TRIM & HEEL)					
FUEL TANK	5.900	2.562	28.222	.000	6.83
FWD WATER	3.201	3.162	14.250	.000	20.41
AFT WATER	4.924	3.163	.000	.000	74.32
NEW DIRTY WATER	.427	2.155	21.000	.000	20.41
TOTAL TANK WEIGHT	14.452	2.887	15.298	.000	121.96
TOTAL SHIP WEIGHT	167.712	9.076	-3.080	.000	121.96

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 18:17:53

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

TRIM LINES

LOADED BOAT, 75% FUEL, PROPOSED

DAMAGED HULL SEGMENTS FOR CONDITION 1

HULL SEGMENT NUMBER	FWD BULKHEAD (FT FROM FP)	AFT BULKHEAD (FT FROM FP)	PERMEABILITY
001	.000	6.500	.950

CONDITIONS AFTER DAMAGE

DISPLACEMENT	167.712	LTON
LCG	-3.080	FT FROM MIDSHIP (+ FWD)
DRAFT AT MIDSHIP	3.297	FT
DRAFT AT FP	3.647	FT
DRAFT AT AP	2.947	FT
TOTAL TRIM	-.700	FT
FLOODED WATER	2.078	LTON
LCG OF FLOODED WATER	37.767	FT FROM MIDSHIP (+ FWD)

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 18:17:53

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

TRIM LINES

LOADED BOAT, 75% FUEL, PROPOSED

DAMAGED HULL SEGMENTS FOR CONDITION 3

HULL SEGMENT NUMBER	FWD BULKHEAD (FT FROM FP)	AFT BULKHEAD (FT FROM FP)	PERMEABILITY
003	17.750	31.250	.860

CONDITIONS AFTER DAMAGE

DISPLACEMENT	167.712	LTON
LCG	-3.080	FT FROM MIDSHIP (+ FWD)
DRAFT AT MIDSHIP	4.053	FT
DRAFT AT FP	5.548	FT
DRAFT AT AP	2.559	FT
TOTAL TRIM	-2.988	FT
FLOODED WATER	38.953	LTON
LCG OF FLOODED WATER	18.070	FT FROM MIDSHIP (+ FWD)

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 18:17:53

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

TRIM LINES

LOADED BOAT, 75% FUEL, PROPOSED

DAMAGED HULL SEGMENTS FOR CONDITION 4

HULL SEGMENT NUMBER	FWD BULKHEAD (FT FROM FP)	AFT BULKHEAD (FT FROM FP)	PERMEABILITY
004	31.250	45.750	.880

CONDITIONS AFTER DAMAGE

DISPLACEMENT	167.712	LTON
LCG	-3.080	FT FROM MIDSHIP (+ FWD)
DRAFT AT MIDSHIP	3.941	FT
DRAFT AT FP	4.601	FT
DRAFT AT AP	3.281	FT
TOTAL TRIM	-1.320	FT
FLOODED WATER	36.697	LTON
LCG OF FLOODED WATER	4.068	FT FROM MIDSHIP (+ FWD)

SHIPHUL 2000 V 2.12 JOHN BOND
96/11/27 18:17:53

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

TRIM LINES

LOADED BOAT, 75% FUEL, PROPOSED

DAMAGED HULL SEGMENTS FOR CONDITION 5

HULL SEGMENT NUMBER	FWD BULKHEAD (FT FROM FP)	AFT BULKHEAD (FT FROM FP)	PERMEABILITY
005	45.750	61.500	.950

CONDITIONS AFTER DAMAGE

DISPLACEMENT	167.712	LTON
LCG	-3.080	FT FROM MIDSHIP (+ FWD)
DRAFT AT MIDSHIP	3.977	FT
DRAFT AT FP	3.729	FT
DRAFT AT AP	4.224	FT
TOTAL TRIM	.495	FT
FLOODED WATER	43.483	LTON
LCG OF FLOODED WATER	-11.156	FT FROM MIDSHIP (+ FWD)

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

TRIM LINES

LOADED BOAT, 75% FUEL, PROPOSED

DAMAGED HULL SEGMENTS FOR CONDITION 6

HULL SEGMENT NUMBER	FWD BULKHEAD (FT FROM FP)	AFT BULKHEAD (FT FROM FP)	PERMEABILITY
006	61.500	75.500	.860

CONDITIONS AFTER DAMAGE

DISPLACEMENT	167.712	LTON
LCG	-3.080	FT FROM MIDSHIP (+ FWD)
DRAFT AT MIDSHIP	3.811	FT
DRAFT AT FP	2.738	FT
DRAFT AT AP	4.884	FT
TOTAL TRIM	2.146	FT
FLOODED WATER	38.791	LTON
LCG OF FLOODED WATER	-26.092	FT FROM MIDSHIP (+ FWD)

SERIAL NO. 0055 - SPIRIT OF SACRAMENTO

TRIM LINES

LOADED BOAT, 75% FUEL, PROPOSED

DAMAGED HULL SEGMENTS FOR CONDITION 7

HULL SEGMENT NUMBER	FWD BULKHEAD (FT FROM FP)	AFT BULKHEAD (FT FROM FP)	PERMEABILITY
007	75.500	85.000	.950

CONDITIONS AFTER DAMAGE

DISPLACEMENT	167.712	LTON
LCG	-3.080	FT FROM MIDSHIP (+ FWD)
DRAFT AT MIDSHIP	3.562	FT
DRAFT AT FP	2.530	FT
DRAFT AT AP	4.595	FT
TOTAL TRIM	2.064	FT
FLOODED WATER	24.575	LTON
LCG OF FLOODED WATER	-37.562	FT FROM MIDSHIP (+ FWD)

Channel Star Excursions, Inc

110 L Street
Old Sacramento, CA 95814
916-552-2939 • 916-552-2942 (Fax)

September 24, 1997

Lt. Shonfelt
U.S. Coast Guard MSO
Coast Guard Island, Bldg. 14
Alameda, CA 94501
FAX (510) 437-3114

Dear Lt. Shonfelt:

Pursuant to my conversation with CWO Day this morning, I respectfully request that my Temporary Certificate of Inspection for dockside events be increased to allow events with passengers up to 300 persons.

After my conversation with Mr. Day, I understand the issues of structural fire protection are of concern for this approval.

Enclosed please find a reduced copy of the plans showing structural fire we are preparing for submittal to USCG. Although at the dock we remain a "cold" boat, I believe that we satisfy all of the requirements based on current regulations for underway approval.

Please contact me immediately concerning these issues, since I misunderstood the impact of passenger counts when I last faxed your office with several dates requested and have commitments I gravely need to honor.

Thank you for you expeditious attention to my request.

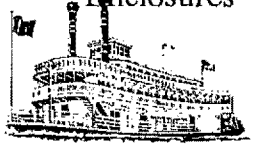
Sincerely,

Brian M. Gerhart
President
Channel Star Excursions, Inc.

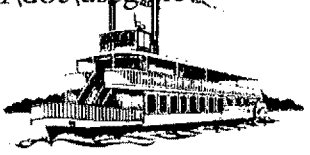
BMG\cej

Enclosures

c:\wp51\doc\usgc1st



Historic Riverboat Dining & Cruising



UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

T-123-97

TEMPORARY CERTIFICATE OF INSPECTION

This Temporary Certificate of Inspection is issued under the provisions of Title 46 United States Code, Section 399, in lieu of the regular certificate of inspection, and shall be in force only until the receipt on board said vessel of the original certificate of inspection, this certificate in no case to be valid after [redacted] 31 OCTOBER 1997

VESSEL	OFFICIAL NUMBER
SPIRIT OF SACRAMENTO	510560

CLASS	GROSS TONS	HOME PORT
SMALL PASSENGER (K)	99	NATIONAL DOCUMENTATION CENTER

OWNER/ADDRESS	OPERATOR/ADDRESS
CHANNEL STAR EXCURSIONS 110 L STREET OLD SACRAMENTO, CA 95814	CHANNEL STAR EXCURSIONS 110 L STREET OLD SACRAMENTO, CA 95814

The following complement of licensed officers and crew is required to be carried; included in which there must be 0 Certificated Lifeboatmen and 0 Certificated Tankermen:

____ Master	____ Master & 1st Class Pilot	____ Able Seamen	____ Chief Engineer	____ Firemen/Watertenders
____ Chief Mate	____ Class Pilot	____ Ordinary Seamen	____ 1st Asst. Engineer	____ Oilers
____ 2nd Mate	____ Radio Officer	2 Deckhands	____ 2nd Asst. Engineer	____ ____
____ ____ Mate(s)	____ ____ Operator(s)	1 SENIOR DECKHAND	____ ____ Engineer(s)	____ ____

In addition the vessel may carry 0 other persons in the crew, 300 passengers, 9 persons in addition to the crew, and 1 PERSON IN CHARGE. Total persons allowed 313

Maximum steam pressure allowed 0 p.s.i.

DATE DRYDOCKED: 21 MARCH 1997

ROUTE PERMITTED AND CONDITIONS OF OPERATION *** ATTRACTION VESSEL ***

THIS CERTIFICATE IS LIMITED TO PERMIT THE CARRIAGE OF PASSENGERS ONLY WHILE THE VESSEL IS SECURELY MOORED TO A PIER. AT ALL OTHER TIMES, THIS CERTIFICATE IS NULL AND VOID.

NO DIESEL DRIVEN MACHINERY SHALL BE OPERATED WHEN PASSENGERS ARE ONBOARD EXCEPT IN EMERGENCIES. ALL ELECTRICAL COOKING/WARMING EQUIPMENT POWER TO THE GALLEY SHALL BE SECURED, FOOD PREPARATION (COOKING OR WARMING) IS NOT ALLOWED WHEN PASSENGERS ARE ONBOARD.

[redacted] Open Flame

AT ALL TIMES THAT PASSENGERS ARE ONBOARD THERE SHALL BE ONE DECKHAND ASSIGNED TO EACH GANGWAY AND ONE DECKHAND DESIGNATED AND DEDICATED AS A ROVING FIRE AND SAFETY PATROL.

PASSENGERS ARE NOT PERMITTED TO REMAIN OVERNIGHT.

Inspection of the above vessel was completed on 17 SEPTEMBER 1997 I HEREBY CERTIFY that on this date the vessel was in all respects in conformity with applicable vessel inspection laws and regulations prescribed thereunder.

OFFICER IN CHARGE, MARINE INSPECTION
H. HENDERSON, CAPTAIN, U. S. COAST GUARD

INSPECTION ZONE
SAN FRANCISCO BAY, CALIFORNIA

DEPT. OF TRANSP. USCG - CG-854 (REV. 2-79)
PREVIOUS EDITIONS ARE OBSOLETE

* U.S. GOVERNMENT PRINTING OFFICE: 1984-718-813/20

EMERGENCY EVACUATION PLAN

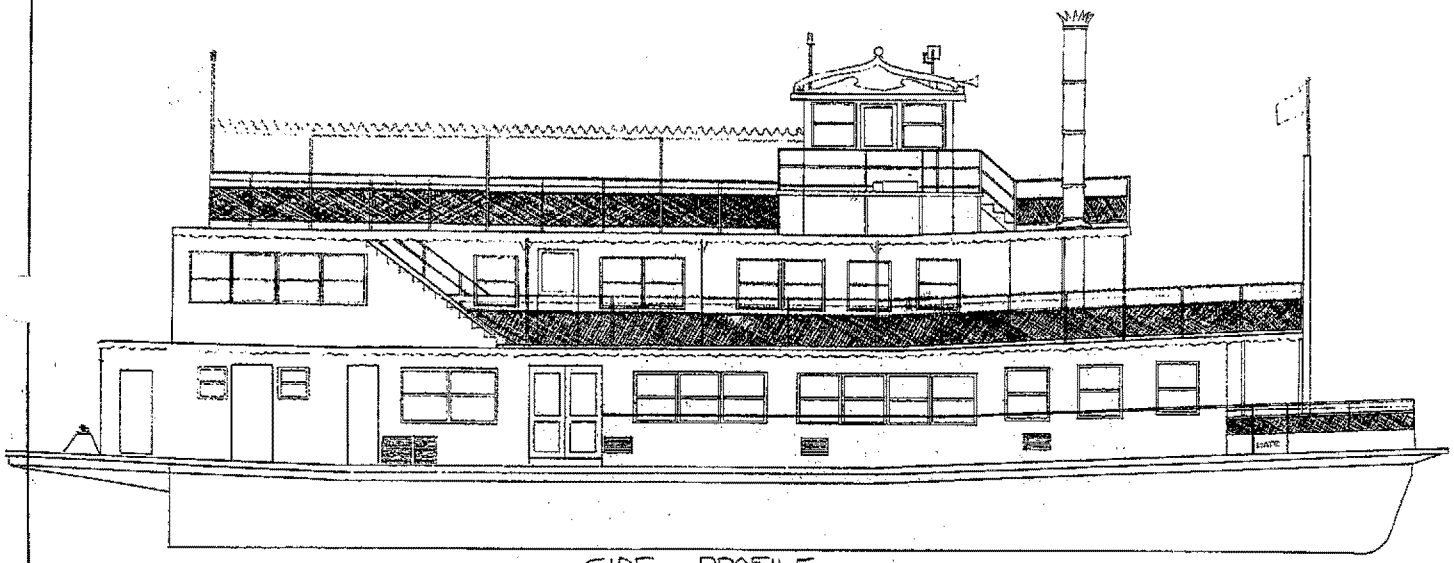
In the event of emergencies the following procedures will be adhered to depending on the needs of the situation. This document should be used as an addition to our station assignments as we hold events at the dock.

1. Accident or injury to passenger or crew.
    a. Render assistance and evaluate extent of injury.
    b. Begin First Aid as appropriate.
    c. Notify Master of Vessel and Manager on duty and commence station assignments.
    d. Contact 9-1-1 from land line and request immediate assistance as appropriate.
    e. Continue to render aid and assistance until emergency personnel arrive and relieve you.

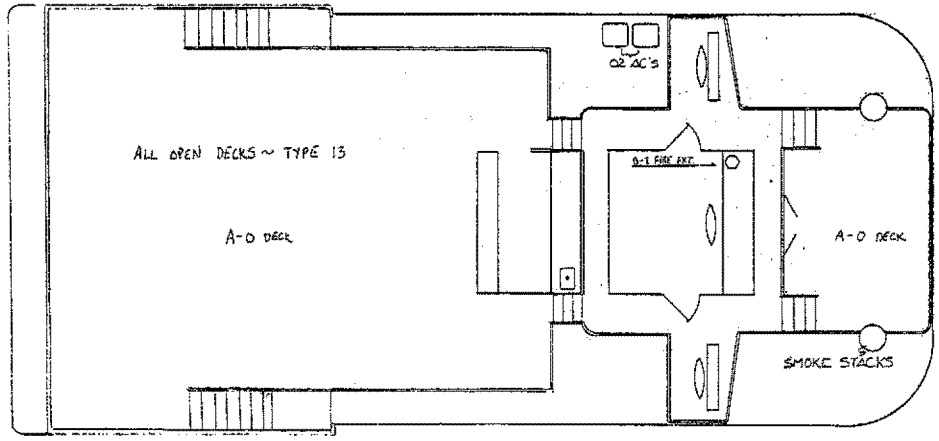
2. Fire onboard vessel.
    a. Evacuate passengers and crew from danger area to safe refuges or off of vessel.
    b. Begin fire suppression, determine source and extent of fire.
    c. Notify Master of Vessel and Manager on duty and commence station assignments.
    d. Contact 9-1-1 and request immediate assistance as appropriate.
    e. Continue with station assignments until emergency personnel arrive and relieve you.

3. Violence or attack on vessel.
    a. Evacuate passengers and crew away from danger and/or off of vessel if possible.
    b. Notify Master of Vessel and Manager on duty to await instruction.
    c. Contact 9-1-1 if possible and provide as much information as possible.

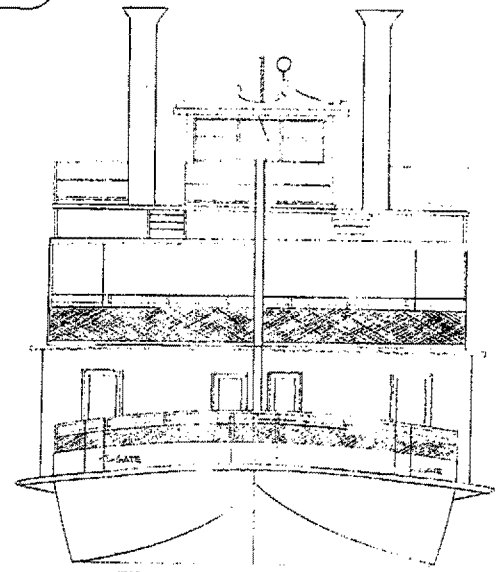
c:\wp51\doc\emrgevac.plan



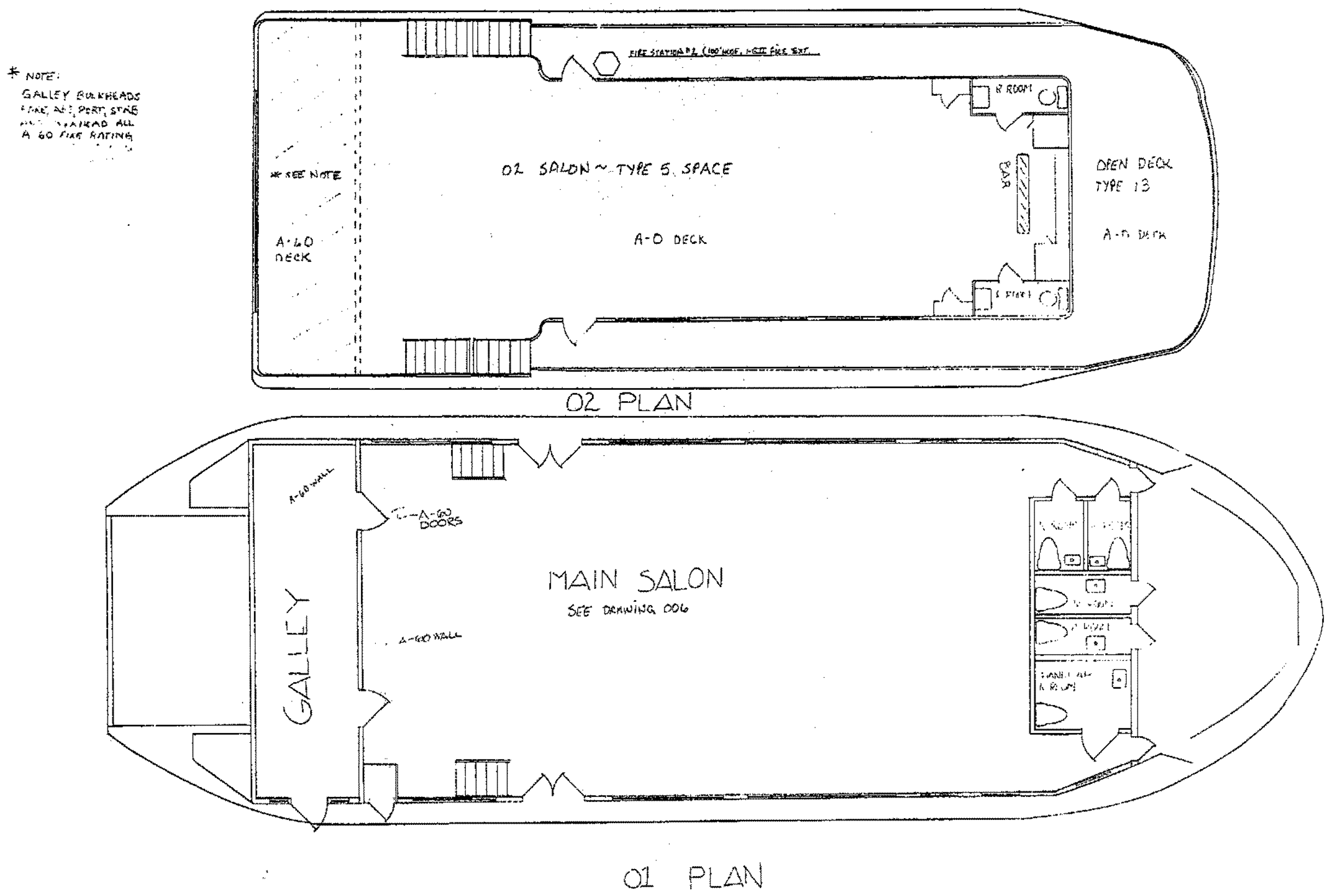
SIDE PROFILE



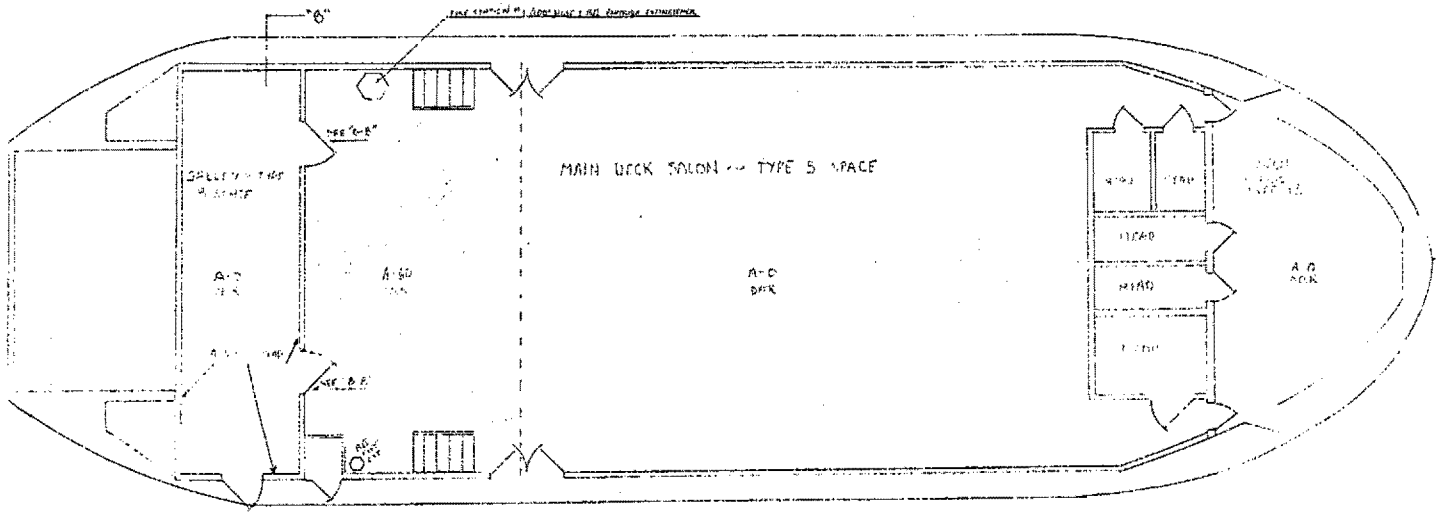
03 PLAN



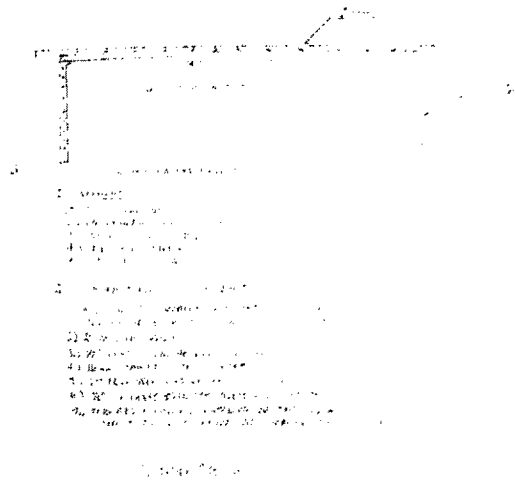
FRONT PROFILE

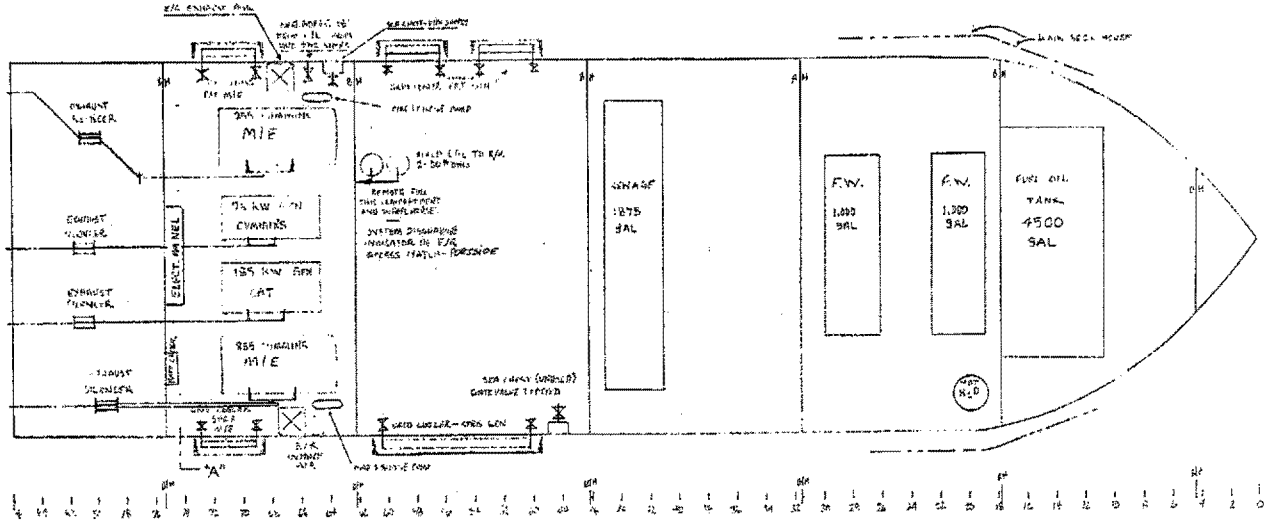


* NOTE:
GALLEY BULKHEADS
A 60 FIRE RATING
* SEE NOTE
A-60 DECK
02 SALON ~ TYPE 5 SPACE
A-0 DECK
BAR
OPEN DECK
TYPE 13
A-0 DECK
02 PLAN
A-60 WALL
A-60 DOORS
GALLEY
MAIN SALON
SEE DRAWING 006
A-60 WALL
01 PLAN

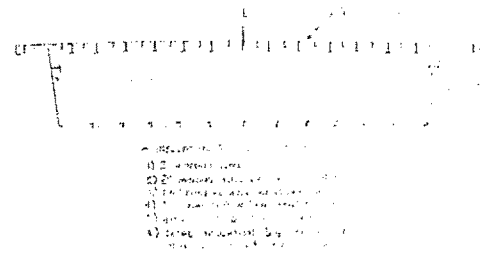


01 PLAN

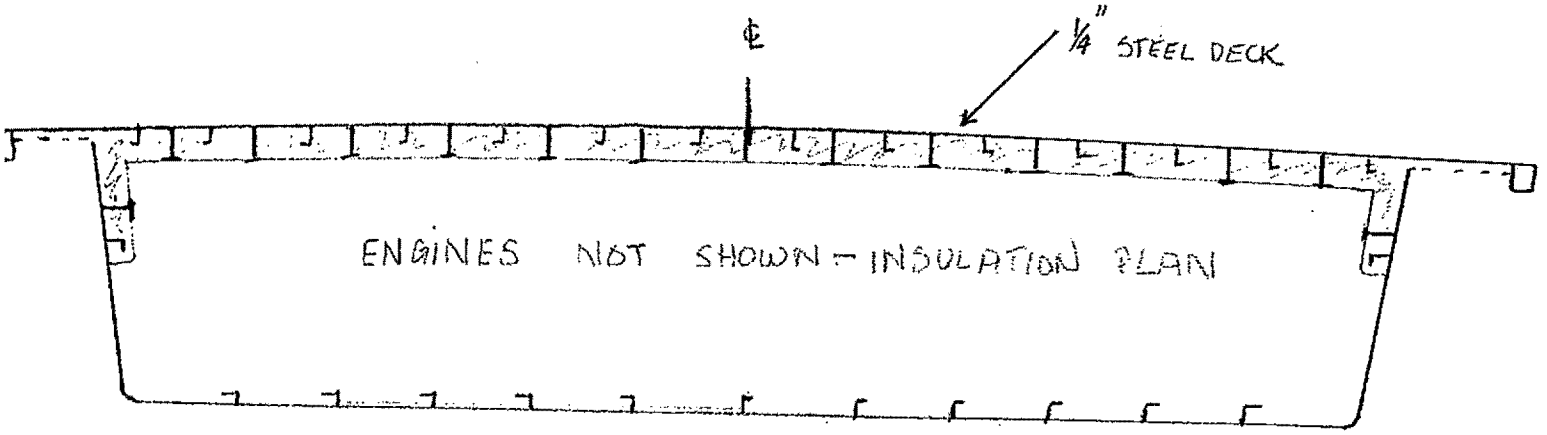




~HOLD PLAN~



SECTION "A-A"

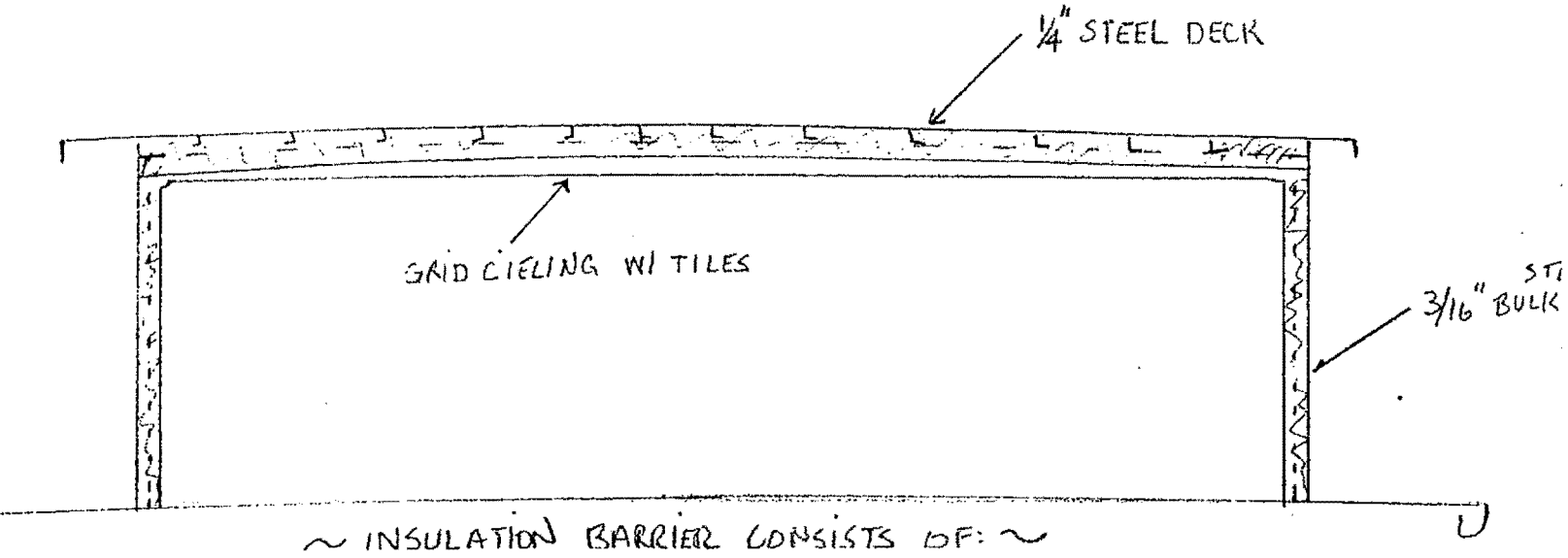


~ INSULATION BARRIER CONSISTS OF: ~

1.) 2" MINERAL WOOL
2.) 2" MINERAL WOOL W/ LEAD SHEATH, ONE SIDE
3.) 1½" MINERAL WOOL W/ MYLAR FACING
4.) 3" MYLAR TAPE W/ "CHILLSEAL" ALL SEAMS
5.) ATTACHED W/ 6" 10ga WELD PIN & CAPS
6.) TOTAL INSULATION 5½" THICK ON UNDERSIDE OF DECK & DOWN HULL 18"

SECTION "A-A"

HOLD PLAN
&
01 DECK PLAN



~ INSULATION BARRIER CONSISTS OF: ~

I. OVERHEAD

1.) 4" MINERAL WOOL
2.) 1½" MINERAL WOOL ON ANGLES
3.) ATTACHED W/ 6" 10ga PINS W/ CAPS
4.) 9/16" STEEL CIELING GRID
5.) 24"x24" CLASS A TILES

II. BULKHEADS ALL SIDES, FORE & AFT

1.) ALL 3/16" STEEL WALLS HAVE CONTINUOS WELD ON OUTSIDE GALLEY WALLS W/ STICHED WELD (3"ON 12") INSIDE GALLEY
2.) 2" MINERAL WOOL
3.) ½" PABCO MARINETEMP FIREBOARD
4.) 16 ga STAINLESS STEEL SHEET
5.) 2" 10ga WELD PINS W/ CAPS FOR INSULATION
6.) ⅛" STAINLESS STEEL "POP" RIVETS FOR SHEETING
7.) FORWARD BULKHEAD INSTALLED W/ TWO 16 ga STEEL DOORS W/ 2" MINERAL WOOL MARINE BOARD INSIDE

SECTION "B-B"

Channel Star Excursions, Inc

110 L Street
Old Sacramento, CA 95814
916-552-2939 • 916-552-2942 (Fax)

November 5, 1997

Lt. Shonfelt
U.S. Coast Guard MSO
Coast Guard Island, Bldg. 14
Alameda, CA 94501
FAX (510) 437-3114

Dear Lt. Shonfelt:

I respectfully request you extend the temporary COI issued to the "Spirit of Sacramento" (510560).

The vessel is currently permitted as an "Attraction Vessel" (see enclosed) and we have been working diligently towards our permanent COI.

Currently we have a USCG observed stability test scheduled for November 12, 1997 and were to have a plan review with CWO's Day and Haldy on November 6, 1997. The stability is going forward, but Day and Haldy postponed due to reassignment to the oil spill up north.

We remain in compliance with all of the conditions stated on the temporary COI and request you extend issuance to December 31, 1997 to allow the completion of our testing and plan submittal.

Thank you for your anticipated approval.

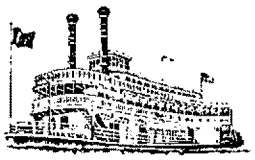
Sincerely,

Brian M. Gerhart
President
Channel Star Excursions, Inc.

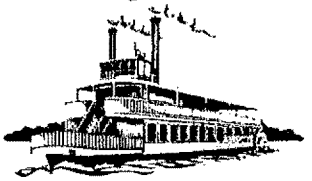
BMG\cej

Enclosures

c:\wp51\doc\uscg9.let



Historic Riverboat Dining & Cruising



Channel Star Excursions, Inc

110 L Street
Old Sacramento, CA 95814
916-552-2939 • 916-552-2942 (Fax)

Dear Lt Menchaca:

The following is a copy of

our ① Station bill assignments (POSTED 4 PLACES)

② Letter further explain dockside Emergency procedures to be used in conjuction with SBA

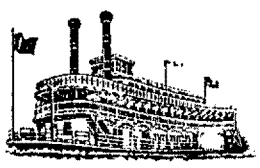
③ Profiles and deck arrangements with escape routes and areas of refuge identified.

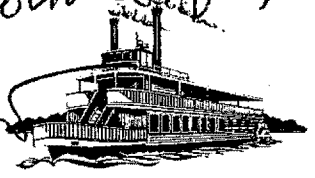
④ Copy of your fax with appropriate information provided

⑤ I would appreciate approval for the following dates or until COI issued

9/18/97, 9/25/97, 9/27/97, 10/4/97, 10/11/97
10/25/97, 10/26/97, 10/31/97

Thank you, Please excuse informal fax





EMERGENCY EVACUATION PLAN

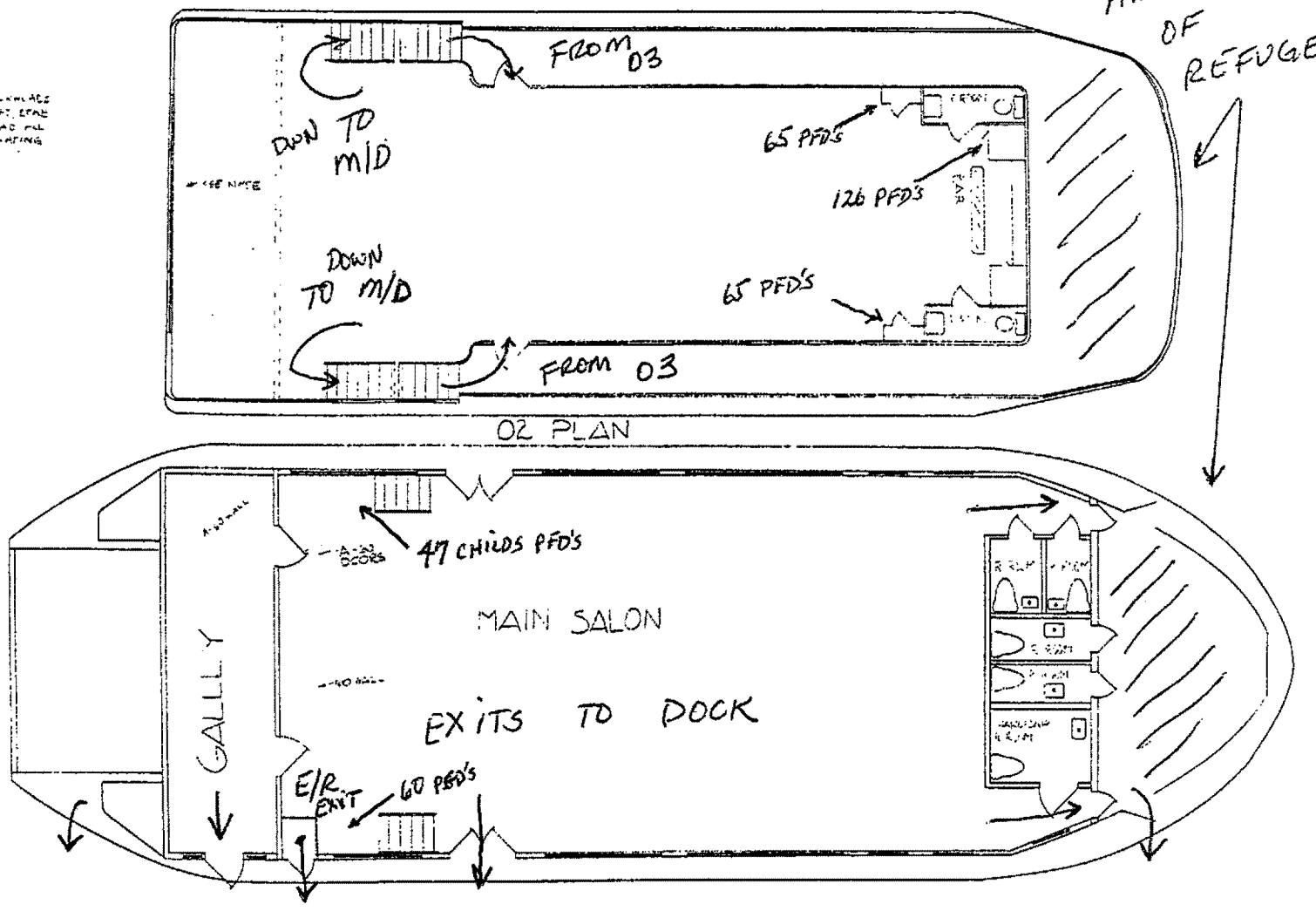
In the event of emergencies the following procedures will be adhered to depending on the needs of the situation. This document should be used as an addition to our station assignments as we hold events at the dock.

1. Accident or injury to passenger or crew.
    a. Render assistance and evaluate extent of injury.
    b. Begin First Aid as appropriate.
    c. Notify Master of Vessel and Manager on duty and commence station assignments.
    d. Contact 9-1-1 from land line and request immediate assistance as appropriate.
    e. Continue to render aid and assistance until emergency personnel arrive and relieve you.

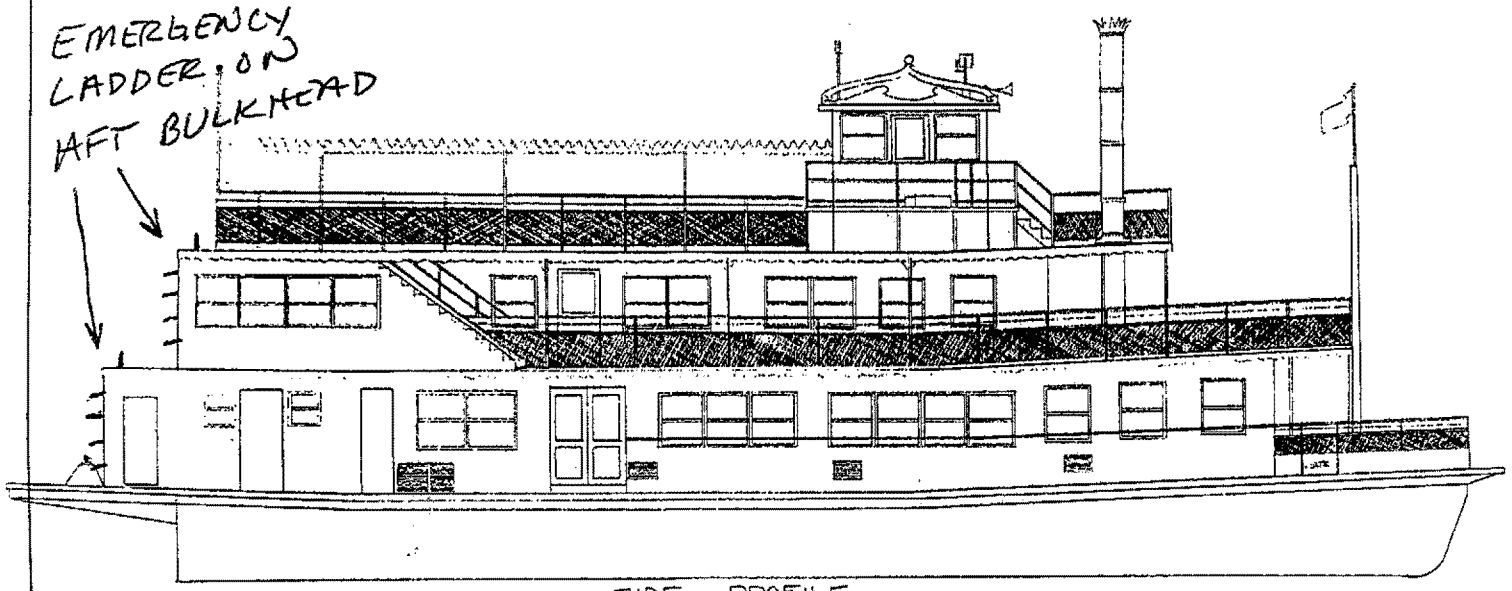
2. Fire onboard vessel.
    a. Evacuate passengers and crew from danger area to safe refuges or off of vessel.
    b. Begin fire suppression, determine source and extent of fire.
    c. Notify Master of Vessel and Manager on duty and commence station assignments.
    d. Contact 9-1-1 from land line and request immediate assistance as appropriate.
    e. Continue with station assignments until emergency personnel arrive and relieve you.

3. Violence or attack on vessel.
    a. Evacuate passengers and crew away from danger and/or off of vessel if possible.
    b. Notify Master of Vessel and Manager on duty to await instruction.
    c. Contact 9-1-1 from land line and request immediate assistance as appropriate.

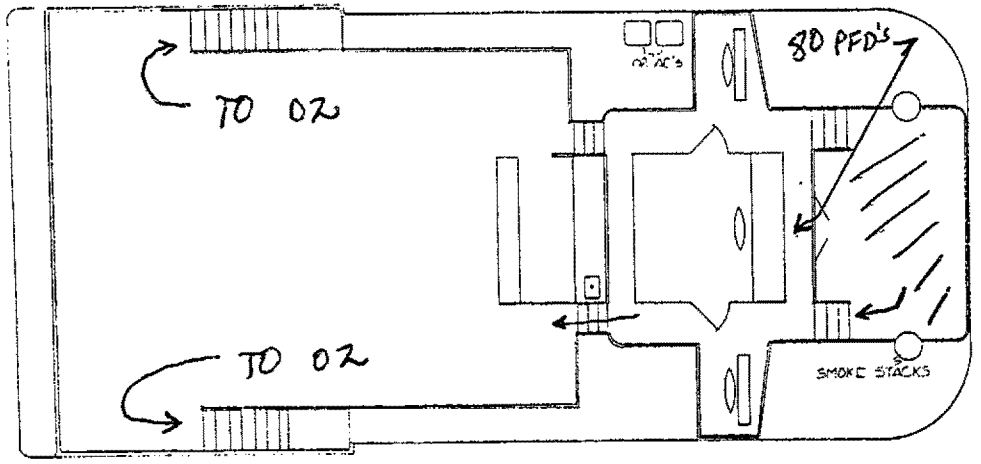
c:\wp51\doc\emrgevac.plan



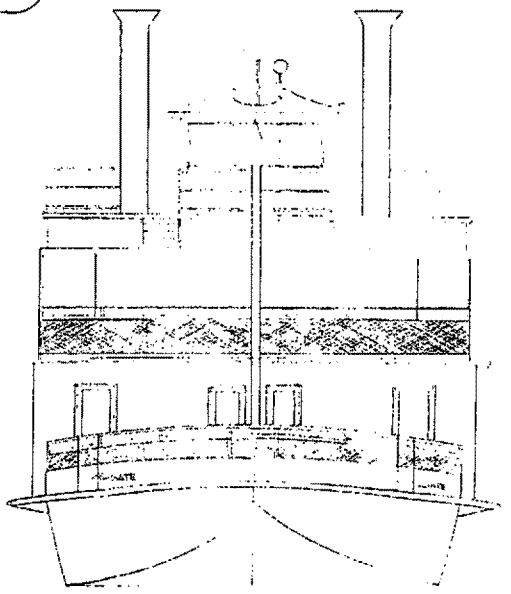
VESSEL TIES ON STRB SIDE



SIDE PROFILE



03 PLAN



FRONT PROFILE

U.S. Department of Transportation
United States Coast Guard

Commanding Officer
U.S. Coast Guard
Marine Safety Office
San Francisco Bay
Inspection Dept

Building 14
Coast Guard Island
Alameda, CA 94501-5100
Phone: (510)437-3119
Fax: (510)437-3114

USCG MARINE SAFETY OFFICE SAN FRANCISCO BAY

INSPECTION DEPARTMENT

FACSIMILE TRANSMISSION COVER SHEET

DATE: 16 SEP 1997 NUMBER OF PAGES (including cover) 1

TO: BRIAN GERHART

FROM: CWO DAY

CONTACT PHONE: 510-437-3817

SUBJ: ATTRACTION VESSEL PERMIT

COMMENTS/NOTES: PLEASE COMMENT:_

1. AMOUNTS, TYPES, AND STOWAGE OF ANY FLAMMABLE OR COMBUSTIBLE LIQUIDS INCLUDING FUEL ABOARD VESSEL. APPROX 800 gal IN TANK

2. PROPOSED METHOD FOR MOORING THE VESSEL 4 - 1½" lines tied to cleats

3. MEANS OF ACCESS FOR PASSENGERS SEE DRAWINGS

4. HOW MANY OTHER PERSONS IN ADDITION TO THE CREW (CATER/HOSTS)? 2 FOOD PREP, 2 BARTENDERS, 8 WAITSTAFF, 1-MGR

5. DEVELOP AN EMERGENCY ACTION PLAN FOR EVACUATION OF PASSENGERS_ SEE PLAN AND PROCEDURES IN THE EVENT OF INJURY TO A PASSENGER.

ANNOTATED BY
BRIAN GERHART

S.J. DAY, CWO

STATION BILL EMERGENCY POSITION ASSIGNMENT

	FIRE ABOARD	COLLISION/HULL DAMAGE	ABANDON SHIP	MEDICAL EMERGENCY
	Determine extent of damage Obtain Assistance Determine ditch location Determine fuel cut off	Determine extent of damage Give orders for PFDS Operate manual pumps	Obtain Assistance Order to abandon Provide crew & passenger safety	Obtain Assistance Determine new destination
tact mm	In charge of emergency team Establish bridge communication Fuel shut off on Masters orders	Determine damage Report to bridge	In charge Passenger PFDS Passenger muster	Provide immediate first aid Establish bridge communication
	In charge of: Passenger PFDS Passenger muster Passenger assurance	On Masters orders/charge of: Passenger PFDS Passenger muster Passenger assurance	Assist in passenger safety	Assist in providing first aid
	Report to bridge	Report to bridge	Report to Master	Report to bridge
	Emergency team	Emergency team	Assist in Passenger safety	**********
	Assist in passenger safety	Assist in passenger safety	Assist in passenger safety	Assist in passenger control

OMB No. 2115-0517

CERTIFICATION DATE: 23FEB96

EXPIRATION DATE: 23FEB97

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

Certificate of Inspection

VESSEL NAME	OFFICIAL NUMBER	CALL SIGN	SERVICE
BECKY THATCHER	D510560	WX9975	PASSENGER

HOME PORT	HULL MATERIAL	HORSEPOWER	PROPULSION
NATL VESSEL DOC CTR	STEEL	600	DIESEL REDUCTION

PLACE BUILT	DATE BUILT	GROSS TONS	NET TONS	DWT	LENGTH
DUBUQUE IA	10JUN67	99	67		84.600

OWNER	OPERATOR
FALLS CITIES RIVERBOAT COMPANY 707 WEST RIVERSIDE DRIVE JEFFERSONVILLE, IN 47130	FALLS CITIES RIVERBOAT COMPANY 707 WEST RIVERSIDE DRIVE JEFFERSONVILLE, IN 47130

THIS VESSEL MUST BE MANNED WITH THE FOLLOWING LICENSED AND UNLICENSED PERSONNEL, INCLUDED IN WHICH THERE MUST BE 0 CERTIFICATED LIFEBOATMEN AND 0 CERTIFICATED TANKERMAN.

1 MASTER	____ MASTER & 1ST CLASS PILOT	____ ABLE SEAMEN	____ CHIEF ENGINEER	____ FIREMEN-WATERTENDERS
____ CHIEFMATE	____ _____ CLASS PILOT	____ ORDINARY SEAMEN	____ 1ST ASST. ENGINEER	____ OILERS
____ 2ND MATE	____ RADIO OFFICER(S)	3 DECKHANDS	____ 2ND ASST. ENGINEER	____ _____
____ _____ MATES	____ _____ OPERATOR(S)	____ _____	____ _____ ENG'RS.	____ _____

IN ADDITION, THIS VESSEL MAY CARRY 387 PASSENGERS, 0 OTHER PERSONS IN CREW, 9 PERSONS IN ADDITION TO CREW, AND NO OTHERS. TOTAL PERSONS ALLOWED: 400

ROUTE PERMITTED AND CONDITIONS OF OPERATION:

*** RIVERS ***

NOT MORE THAN ONE MILE FROM SHORE.

WHEN OPERATING MORE THAN 12 HOURS IN ANY 24-HOUR PERIOD, AN ALTERNATE CREW SHALL BE PROVIDED.

THE REQUIRED DECKHANDS SHALL INCLUDE A DESIGNATED SENIOR DECKHAND.

WHEN CARRYING LESS THAN 75 PASSENGERS, CREW MAY BE REDUCED TO:
1 MASTER
2 DECKHANDS

THE MINIMUM NUMBER OF CHILD-SIZE LIFE PRESERVERS REQUIRED IS 40. WHEN MORE THAN 40 CHILDREN ARE CARRIED, ADDITIONAL CHILD-SIZE LIFE PRESERVERS SHALL BE PROVIDED SO THAT THE VESSEL HAS AN APPROVED LIFE PRESERVER SUITABLE FOR EACH CHILD ON BOARD.

*** SEE NEXT PAGE FOR ADDITIONAL CERTIFICATE INFORMATION ***

WITH THIS INSPECTION HAVING BEEN COMPLETED AT CINCINNATI, OH CERTIFIED BY THE OFFICER IN CHARGE, MARINE INSPECTION, LOUISVILLE, KENTUCKY ON 23FEB96, THIS VESSEL IS TO BE IN ALL RESPECTS IN CONFORMITY WITH THE APPLICABLE VESSEL INSPECTION LAWS AND THE RULES AND REGULATIONS PRESCRIBED THEREUNDER.

PERIODIC REINSPECTIONS

DATE	ZONE	SIGNATURE

THIS CERTIFICATE ISSUED BY:

B. D. BRANHAM, COMMANDER, USCG
OFFICER IN CHARGE, MARINE INSPECTION
LOUISVILLE, KENTUCKY
INSPECTION ZONE

DEPT. OF TRANSP., USCG, CG-841 (Rev. 3-85)
PREVIOUS EDITIONS ARE OBSOLETE

SN 7530-00-FO1-0370

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

Certificate of Inspection

BECKY THATCHER CERTIFICATION DATE: 23FEB96

--- HULL EXAMS ---

-EXAM TYPE-	-NEXT EXAM-	-LAST EXAM-	-PRIOR EXAM-
DRYDOCK	31JUL00	27JUL95	29JAN91

--- STABILITY ---

LETTER APPROVAL DATE/ 24AUG67 OFFICE/ NEWMI

--- LIFESAVING EQUIPMENT ---

	NUMBER PERSONS		REQUIRED
TOTAL EQUIPMENT FOR	400	LIFE PRESERVERS(ADULT)...	400
LIFEBOATS(TOTAL).....		LIFE PRESERVERS(CHILD)...	40
LIFEBOATS(PORT)*.....		RING BUOYS(TOTAL).....	3
LIFEBOATS(STARBD)*...		WITH LIGHTS*.....	1
MOTOR LIFEBOATS*.....		WITH LINE ATTACHED*....	1
LIFEBOATS W/RADIO*...		OTHER*.....	1
RESCUE BOATS/PLATFORMS.		IMMERSION SUITS.....	
INFLATABLE RAFTS.....		PORTABLE LIFEBOAT RADIOS.	
LIFE FLOATS/BUOYANT APP		EQUIPPED WITH EPIRB?.....	NO
WORKBOATS (NOT REQUIRED)		(* INCLUDED IN TOTALS)	

--- FIRE FIGHTING EQUIPMENT ---

TOTAL HOSE LENGTH/ 100 NUMBER OF FIRE AXES/ 1 NUMBER OF FIRE PUMPS/ 2

FIXED EXTINGUISHING SYSTEMS

SPACE PROTECTED	AGENT	CAPACITY
ENGINE ROOM	CO2	100

FIRE EXTINGUISHERS - HAND PORTABLE AND SEMI-PORTABLE

A-II	1 B-I	3 B-II	B-III
B-IV	B-V	C-I	C-II

*** END ***